MARITAL STATUS AND HOSPITAL USE

A report of a prospective case study of elderly people in the community

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J.R. Butler
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THE BACKGROUND TO THE PROJECT

It has frequently been observed that the use of medical and psychiatric care services varies with marital status. Almost a century ago, the Lunacy Commissioners (1889) noted that 'at marriageable ages, and in proportion, considerably more single than married or widowed persons are admitted to the asylums of England and Wales'. More recent evidence confirms that the non-married* continue to be disproportionately represented among those admitted to and resident in psychiatric hospital (Baldwin, 1971; Price et al, 1971; McKechnie, 1972; Department of Health and Social Security, 1975), and similar findings have been reported in relation to in-patient psychiatric care from other countries (Malzberg, 1940; Odegaard, 1946, 1953; Locke et al, 1960; Pugh and McMahon, 1962; Krupinski and Stoller, 1962; Kramer, 1969; Taube, 1970; Kramer et al, 1972). Non-married people also seem more likely to enter geriatric care. Kay et al (1962) reported 'a marked excess of both single and widowed and a deficiency of married people' among patients over 65 years of age admitted to the geriatric ward of the Newcastle General Hospital between 1957 and 1960, and Isaacs et al (1972) likewise found that just over three-quarters of a consecutive series of 612 patients admitted to the geriatric department of the Glasgow Royal Infirmary in 1966-7 were single or widowed, and just under a quarter were married, compared with two-thirds and one-third respectively among a control group matched for age and sex.

As with in-patient care, homes for the elderly and disabled also contain a disproportionate number of non-married residents. The 1971 census showed that the proportion of all elderly (65+) people enumerated in such homes was highest for the single (5.4%) and lowest for the married (0.3%), with the widowed and divorced occupying intermediate positions of 3.6% and 2.0% respectively (Office of Population Censuses and Surveys, 1974a). The proportions of single, widowed and divorced people in residential homes increased consistently with rising age above 65. These point-prevalence results from the census are echoed in studies of admissions to old people's and welfare homes (Kay et al, 1962; Townsend, 1964; Lowther and McLeod, 1974), and they demonstrate that the preponderance of elderly non-married people in residential homes occurs in addition to their over-representation among admissions to geriatric hospital care.

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* Throughout this report, the phrase 'non-married' is used as the general term to describe all those who are not married, including the single, widowed and divorced.

Although such findings may seem unremarkable in relation to the care of the edlerly and the mentally disordered, it is less obvious that they should also appear across the range of non-psychiatric hospital care. Yet that is what is found. Using 1951 census data, Abel-Smith and Titmuss (1956) found that 'for all types of hospital, and in relation to their numbers in the total adult population, the single, widowed and divorced make about double the demand on hospital accommodation compared with married people.' Likewise, the 1971 census showed that 43% of men and 62% of women aged 20 years or more in non-psychiatric hospitals on census night were not married, compared with 23% and 31% respectively among men and women aged 20 years or more in the total population (Office of Population Censuses and Surveys, 1974a). Although these comparisons are not standardised for age, they suggest that the magnitude of the differences noted by Abel-Smith and Titmuss remained of a similar order in 1971 as in 1951.

More detailed analyses have been performed on data collected in the Hospital In-Patient Enquiry (Butler and Morgan, 1974; 1977). For example, the 1973 Report of the Enquiry showed that non-married patients in England and Wales used about 15,600 additional beds each day as a result of their longer durations of stay and about 8,200 additional beds as a result of their higher admission rates. Put the other way, non-married patients would have occupied some 15,600 fewer beds each day in non-psychiatric hospitals if they had had the same average lengths of stay as the corresponding groups of married patients, and a further 8,200 fewer beds if they had had the same admission rates. These figures can only be estimates because of the different age distributions of married and non-married people within the age bands used in the HIPE reports, but they are sufficiently accurate to confirm that marital status is significantly related to differences in the way people enter and pass through the hospital system. Further analyses of data in the published HIPE reports indicate that the overall variations in use between married and non-married patients remain good for almost all major causes of admission, and that the differences have actually been increasing since 1964, when marital status was first included in the published HIPE tables.

The Hospital In-Patient Enquiry was not intended for use as a research tool, and although the data summarised in the previous paragraph point towards possible areas of further investigation, they are deficient in

not only the widowed, divorced, single and separated, but also those whose status was unknown or unrecorded. The Reports also fail to distinguish between hospital types, making it impossible to know whether the variations in hospital use between the married and non-married are more marked in, say, long-stay and geriatric hospitals than in acute hospitals. These two problems are overcome in the Hospital Activity Analysis, data from which may be commissioned on a regional basis identifying patients in each separate marital category, and distinguishing between different types of hospitals. Such data were obtained for the South-East Thames Region for 1975, and analysed in a similar way to the HIPE data (Butler and Morgan, 1977). The results showed that the greater use of hospital beds by non-married patients was not restricted to any one marital category: among men and women at all ages over 25, the average daily rate of bed use throughout the region was generally higher for single, widowed and divorced patients than for married patients. The differences, moreover, remained good in acute hospitals as well as in long-stay, geriatric, convalescent, rehabilitation and specialist hospitals. Indeed, the actual number of additional beds used by all non-married patients in the region (that is, the additional beds resulting from their higher admission rates and longer durations of stay in comparison with married patients of the same age and sex) was larger in the acute and mainly acute hospitals than in any other category. Some 60% of all the additional beds used each day were located in these hospitals.

The literature associating marital status with distinctive variations in the use of health services is so pervasive, between countries, across time, and between different services, that it presents a challenge to its interpretation. Relatively few attempts have been made to offer a satisfactory theoretical explanation of the association, and most of these have focused on the link between marital status and the use of psychiatric services (Gove, 1972; Bachrach, 1975). In the case of non-psychiatric hospital use, a simple model of the admission process offers a frame of reference. The model postulates three interactive sets of factors which may influence the rate of hospital use, and it indicates the points at which the differential experiences and conditions of people in differing marital roles may affect the outcome. The three sets of factors are: the prevalence in the community of the 'conditions' which the hospital exists to treat; the process by which people are referred to the hospital; and the basis on which decisions are made about admitting patients to, and discharging them from, in-patient care.

There exists a substantial body of evidence that the prevalence of conditions which the hospital typically exists to treat is differentially

distributed among marital status groups. For example, to the extent that premature mortality is accepted as an approximate indicator of the prevalence of such conditions among defined groups in the population, it has long been known that non-married people generally display higher age-specific death rates than the married. Farr (1859) noted that 'unmarried people suffer from disease in undue proportion and the have-been-married suffer still more', and March (1912) published extensive data on age-specific death rates by marital status for France, Russia and Sweden during the period 1886-1895 showing that for both men and women in almost all age groups mortality rates were lowest for the married, slightly higher for the single, and highest for the widowed and divorced. Recent data for England and Wales show a substantially similar pattern: in 1965-7 mortality rates were highest for widowed people in almost all decennial age groups over 14, next highest for single and divorced people, and lowest for married people (General Register Office, 1971). There is evidence of a similar association between marital status and mortality in America (US Public Health Service, 1956; US National Office of Vital Statistics, 1958), although divorced people in the US appear to be at greater relative risk than in the UK. Evidence of marital variations in the cause of death indicates that the non-married are more likely than the married to die from most major causes of death (General Register Office, 1971). As Shurtleff (1956) has expressed it, 'there is no disease that kills impartially, that kills the married and the unmarried alike'.

Valid information on the distribution of morbidity is notoriously difficult to assemble, and, with the exception of psychiatric morbidity, it reveals a more ambiguous association with marital status than does the information on mortality. Community surveys of self-reported chronic and acute illness are often used as a source of data on the prevalence of morbidity. The General Household Survey shows that widowed, divorced and separated people consistently have the highest rates of self-reported chronic and acute sickness, but no systematic variations occur between married and single people (Office of Population Censuses and Surveys, 1978). Married women of all ages seem to be more prone to acute illness than single women, but this is not true for men, and there is no consistent difference between married and single people in the reporting of chronic illness. Other community surveys offer similar conclusions, particularly in relation to the greater volume of acute illness reported by married than by single women (Brooke, 1951; Lahorgue, 1960).

In spite of the dangers involved in relating marital variations in mortality and morbidity experience too closely to parallel variations in

hospital use, there is sufficient evidence to assume that part of the variation in hospital use is explicable in terms of the differential distribution between marital status groups of the 'conditions' which hospitals normally treat. This may be particularly true for widowed people, who consistently rank high both in hospital utilisation rates and in the prevalence of acute, chronic and fatal conditions. Although it lies beyond the scope of this report to examine the reasons for this seemingly widespread association between ill-health and marital status, it may be noted in passing that a number of hypotheses have been advanced. One hypothesis is that people's state of health may have a selective effect upon their chances of marrying in the first place, and of remarrying in the event of widowhood or divorce. According to this hypothesis, ill-health or disability is socially devalued, and those who experience it will be less attractive as prospective marital partners. Although there is some evidence to support the hypothesis in relation to specific conditions (Medsger and Robinson, 1972), it is doubtful whether it constitutes an adequate account of the widespread, pervasive differences noted above in the morbidity experiences of different marital groups (Morgan, 1980). Another hypothesis is that non-married people, by virtue of the marginal social position they occupy in a world that is populated predominantly by the married, are more susceptible to stress and to the range of disorders that are believed to be associated with stress. A refinement of this hypothesis points also towards the stresses accompanying a change in status, such as the transition from marriage to widowhood or divorce. There is, for example, firm evidence of an increased risk of illness and death among widowed people in the years following the death of a spouse (Cox and Ford, 1964; Lutkins, 1967; Parkes, et al, 1969; Ward 1976), but it is unclear whether the critical ingredient is the personal sense of desolation and bereavement or the enforced disruption of familiar patterns of life (Totman, 1979). A third hypothesis about the relationship between ill-health and marital status is that certain life-styles and living conditions are adopted more frequently by non-married than married people, and these predispose against the maintenance of good health. At younger ages, for example, the lack of commitment to a spouse and a young family may account for the increased mortality among single people from such causes as road traffic accidents and liver cirrhosis, whilst in old age the absence of a spouse and of the support of married children may be conducive to inadequacies of diet and self-care which increase the susceptibility to disease. Dietary deficiencies among elderly single and widowed people, for example, have been suggested to the author by an orthopaedic surgeon as a possible explanatory factor in the markedly greater incidence of fractures and dislocations among elderly non-married people. All of these

hypotheses, and others, may be worth more careful examination, but it is not the primary task of this report to do so.

Part of the variation in hospital use between married and non-married people is therefore explicable in terms of the distribution in the community of the 'conditions' which the hospital exists to treat. In particular, widowed people seem to enter hospital more frequently than married people of similar ages partly because they experience more disease. However, it is well established that 'pure' clinical morbidity may not be the only reason why patients are admitted to, or remain in, hospital. Account must be taken of other possible influences. A second set of factors in the admission process that may contribute to the differences between married and non-married people is the way in which they use their general practitioners and are referred to the hospital. There is abundant evidence from studies of illness behaviour that people do not always respond to the same symptoms or illnesses in the same ways, and it is possible that, even when confronted with comparable symptoms, those who are not married will resort more readily to their GPs than those who are. Likewise, in deciding how to treat their patients' problems, GPs may for various reasons be more inclined to refer non-married people for specialist care or opinion even when confronted with a similar diagnosis or set of signs. In addition to their greater propensity for admission on clinical grounds, non-married people may therefore also be at greater risk of admission by virtue of the bias exercised towards them in the process of seeking care and being referred.

Although many studies have been made of the pattern of consultations in general practice, few have included the variable of marital status. The main source of information about marital variations in consultation rates is the General Household Survey, which presents information on self-reported GP consultations in a two-week period, by sex and marital status, for each of three broad age groups (15-44, 45-64 and 65+). The six published annual reports of the survey (1972 to 1977) show that, in general, consultation rates are higher for widowed, divorced and separated people in each age group than for married people, but there are no consistent differences between the single and the married. In the youngest age group (15-44), married people have a higher consultation rate than single people. The difference is most marked among women, suggesting that consultations associated with pregnancy may be a major factor in explaining it. In the middle-age group (45-64), single people have the higher consultation rate. In the highest age group (65+), no consistent pattern is discernible. These data are, for the most part, consistent with the view that married

and non-married people may differ in their propensity to seek professional medical care, but they do not substantiate it. It has already been noted that people who are not married generally experience more disease and illness than those who are, and it is possible that their higher GP consultation rates may merely reflect that experience. In order to test for differences in illness behaviour, it is necessary in some way to standardise for perceptions of ill-health.

The data reported from the General Household Survey enable a crude standardisation to be carried out. The report of the 1976 Survey contained data on both GP consultation rates and rates of self-reported acute illness, in a two-week period, by age, sex and marital status. By dividing the consultation rate in each age, sex and marital group by the rate of self-reported illness, a consultation index can be constructed that shows the use which people made of their GPs in relation to their perceptions of ill-health. The same technique has also been used by Blaxter (1976) in comparing GP consultation rates between social classes. The outcome of this exercise is clear-cut for the female respondents in the 1976 survey. In each age group the consultation index was higher for married women than for single, widowed, divorced or separated women. This means that, although non-married women (especially those who were widowed, divorced or separated) used their general practitioners more in terms of uncorrected consultation rates, it was the married women who used them more in relation to the amount of both acute and chronic illness they perceived themselves to have. Among male respondents the picture is somewhat different and rather less clear-cut. The single men behaved in the same way as the single women: that is, whether the consultation index is based upon the reporting of acute illness or chronic illness, single men had lower consultation rates in relation to their perceptions of ill-health than either married, widowed, divorced or separated men. However, the relationship between the married and the other non-married groups was different for male than for female respondents, for whereas the married women had a higher consultation index than the widowed/divorced/separated women in each age group, married men had a lower index than the widowed, etc.

This analysis, though complicated, is important, for it suggests that the patterns of illness behaviour among women play little or no part in determining the differential rates at which married and non-married women are admitted to hospital. Although women who are not married (especially those who are widowed, divorced or separated) consult their GPs more frequently than those who are, all of this 'excess' consultation rate may be explained in terms of their higher levels of perceived morbidity. (It may, of course, also be the case that the non-married are more inclined to notice symptoms of

ill-health, or to report them in the GHS interviews, or both; but the data do not enable this proposition to be tested.) Among the males of the population, the influence of illness behaviour can seemingly be discounted as a factor in the differential rates of hospital admission between married and single men, but it may be a significant element in the differential rates between married and widowed etc. men. Not only do the latter apparently experience more illness than the former, they also consult their GPs more frequently in relation to the amount of both acute and chronic ill-health from which they consider themselves to be suffering.

Visiting the general practitioner is only one part of the process by which people enter hospital: equally important is the decision of the GP about whether to refer for specialist care or opinion. The outcome of this decision is reflected in the pattern of hospital out-patient attendances, but data are thin. The Hospital In-Patient Enquiry and Hospital Activity Analysis do not cover out-patient activities, and although the General Household Survey includes a question about out-patient attendances, the published GHS reports have not tabulated the replies by marital status. Two ad hoc studies of out-patient departments, both rather old, offer some clues. Forsyth and Logan's (1968) study of 50,000 new outpatients at 80 hospitals in England found that, in comparison with the population of England and Wales, married people were over-represented among the outpatients, particularly at ages over 60. Conversely, the single and, particularly, the widowed were under-represented. Similar results were obtained from a sample of 1,556 new outpatients attending Guy's hospital in 1962 (Butterfield and Wadsworth, 1966). Forsyth and Logan suggest an explanation for their findings in these terms. 'It may well be that the existence of a surviving spouse, by encouraging the use of general practitioner services, stimulates an out-patient referral, while at the same time preventing admission to hospital by providing a home to which the elderly out-patient can return.'

In offering this explanation, Forsyth and Logan point towards a third set of factors in the admission process that may contribute to the different hospital utilisation rates of married and non-married people, namely the basis on which decisions are made about admitting patients to, and discharging them from, in-patient care. In making such decisions, doctors may have regard not only for the clinical aspects of their patients' conditions, but also for their broader physical and social environments. Forms of care that are technically feasible on an outpatient or primary care basis may nevertheless result in hospital admission for those whose physical or social environments are regarded as unsuited to extra-mural care. If systematic

variations exist between marital status groups in the proportions of people living in such environments, this factor may be expected to result in differential admission rates and lengths of stay even in the absence of any variations in the levels of clinical severity that are presented. Evidence of this proposition may be sought in the admission and discharge thresholds of married and non-married patients, the hypothesis being that non-married patients may be admitted at a lower level of clinical severity than married patients, and kept in hospital until they have reached a more advanced stage of recovery.

Forsyth and Logan suggest that a critical feature of the socio-physical environment that might influence admission and discharge decisions, and that would also discriminate between married and non-married patients, is the presence of another person in the home. Although these authors do not elaborate their argument, it implies that the presence of such a person is more likely to be found in the homes of married than of non-married people (i.e. the spouse), and that such a presence would ensure a sufficient level of personal care to enable medical treatment to be given on a non-inpatient basis. There is a large amount of evidence in the literature to support this general argument. Various studies have concluded that between about 3% and 25% of patients are occupying hospital beds for predominantly social reasons (Carstairs and Heasman, 1974), and that deficiencies in home care are among the most important components. For example, Isaacs et al (1972) found that a quarter of elderly patients admitted from home to the geriatric department of the Glasgow Royal Infirmary were admitted because of insufficient home care; this group was the least ill of those admitted, and included fewer married people and more of those who lived alone. Similar results emerged from another study of people in their last year of life (Cartwright et al, 1973). Among those admitted for hospital care during this period, non-married patients were less likely to be discharged to die at home than married patients, fewer of whom lived alone or had no family members to care for them.

Direct evidence on admission and discharge thresholds, and the ways in which these vary with marital status, is sparse. A large-scale study carried out in the Liverpool region in 1967-8 (Butler and Pearson, 1970) has been reanalysed to provide some clues (Butler and Morgan, 1974). The study included 1,106 patients over 20 years of age who had had an unbroken stay of at least 30 days in an officially classified 'acute' bed in the Liverpool Regional Hospital Board area. The hospital doctor responsible for each patient (usually the consultant) was asked whether, in his opinion, the

patient needed to remain in hospital care, and on giving a positive response he was further asked whether the patient needed to remain in an acute ward or could appropriately be transferred elsewhere. The replies to these two questions yielded a three-fold classification of each patient's clinical condition: not requiring hospital care at all (low care), requiring hospital care but not in an acute ward (intermediate care), and requiring continuing acute care (high care). At all ages, relatively fewer single than married or widowed patients were judged by the doctors to need continuing acute care, and correspondingly more of them were regarded as not requiring hospital care at all. The doctors' assessments were broadly corroborated by further information about the clinical services being given to each patient, for in each age group the single patients were receiving fewer services than either the married or the widowed patients. This suggests that single patients tended to remain in hospital until they had reached a more advanced stage of recovery than other patients, and it is consistent with the evidence reviewed above about the way in which the social components of admission and discharge decisions may lead to higher utilisation rates among this group of patients. The differences between married and widowed patients in the study were less clear-cut. Up to the age of 70, no significant differences occurred between the doctors' ratings of the type of care required by each group, but above this age a markedly lower proportion of the widowed patients were judged by the doctors to need continuing acute care, and relatively more of them were regarded as not requiring hospital at all. The implication from these results (that the social components of admission and discharge decisions tend to increase the use made of hospitals by widowed people only at the upper end of the age range) is reinforced by the replies to another question about the problems which the doctors felt each patient would experience in being discharged from hospital. There was little difference between the anticipated problems of married and widowed people under 60 years of age, but above this age a much higher proportion of widowed than of married patients were expected to have problems on being discharged. Interestingly, too, the single patients in each age group were expected to have more problems than either the married or the widowed, which further reinforces the view that admission and discharge decisions are taken in ways that tend to enlarge the utilisation rates of these patients.

A careful examination of the association between marital status and hospital utilisation, and of the factors intervening between them, is justified by the evidence summarised above. The variations in daily

non-psychiatric bed use between married and non-married patients are very large and increasing, and it is relevant from both an academic and a policy perspective to understand what is happening. It is evident that subtle and pervasive social, behavioural and epidemiological characteristics are associated with the occupancy of different marital roles and the transition between them, and it is the interaction between these characteristics that creates the distinctive patterns of hospital use summarised above. Yet much remains obscure and imperfectly understood, and the justification for further enquiry lies in the increasing influence that marital status may exert upon future patterns of need and demand for hospital care.

Population projections to the end of the century, prepared annually by the Government Actuary, show that between 1973 and 2013 the number of non-married people over the age of 60 in England and Wales is projected to increase by 183,000 (4.5%) and the number over the age of 70 by 262,000 (10.4%) (Office of Population Censuses and Surveys, 1974b). No distinction is made in the Government Actuary's projections between different categories of non-marriage, but a separate projection prepared by Leete (1977), based upon the fuller analysis of marital trends carried out by the Government Actuary in 1976, provides just such a justification. Leete's projection, extending from 1976 to 1991, shows that, among those aged 65 and over in England and Wales, the number of single people is expected to decline by 121,000 (15.8%), the number of widowed people to increase by 287,000 (10.9%), and the number of divorced people to increase by 166,000 (197.6%). Combining the three non-married categories together, Leete's projection indicates that by 1991 there will be some 332,000 more non-married people aged 65 and over than there were in 1976, an increase of 9.6%. By contrast, the number of married people of this age in England and Wales is projected to increase by only 6.0%, from 3,581,000 in 1976 to 3,795,000 in 1991. Thus, not only is the total number of elderly people expected to be substantially larger in 1991 than in 1976, the rate of increase is also expected to be higher among widowed and (particularly) divorced people than among married people. If, then, the pattern of a higher rate of hospital utilisation among non-married people continues in the future, the projected changes in the marital structure of the population may be expected to intensify the demand on resources in addition to the pressures resulting from an increase in the sheer number of elderly folk. Faced with this prospect, an understanding of the dynamics of the association between marital status and hospital utilisation may be of value to those who control the development of policies for the care of the aged, and who must allocate the available resources in the most effective and efficient ways.

THE PROJECT PROPOSALS

Proposals

In 1974 proposals were submitted to, and accepted by, the Department for two distinct but inter-related studies to explore certain aspects of the association between marital status and hospital utilisation. The proposals indicatedthat the studies would have several important limitations: they would be confined to elderly people, they would be based in the Canterbury area, and they would concentrate particularly on the use of acute hospital facilities.

The hospital study

The first of the two studies was successfully completed in 1978, and a final report has been submitted to the Department (Morgan, 1979). A central aim of this study was an examination of the extent to which the higher rate of use of acute hospital beds by non-married than married patients might be attributed either to their greater clinical needs for hospital care or to differences in the doctors' perceptions of and responses to the social needs of each group. The study took the form of a prospective review of 407 elderly (65+) patients admitted to the medical and surgical wards of a district general hospital during a period of five months. Particular care was taken in devising a reliable form of utilisation review that minimised reliance upon retrospective assessments. As soon as possible after the initial assessment of each patient in the study, the doctor in charge of each case was asked to say whether, in his judgement, the patient could have been treated in the out-patient department or by the general practitioner, assuming that the patient's home circumstances were favourable. Later, when a provisional discharge date had been set for the patient, the doctor was asked whether the setting of the date had been influenced by the patient's home circumstances. Finally, at the time of writing-up the patient's discharge summary, the doctor was asked to note the reasons for any delay between the provisional and the actual discharge dates. Further information was collected about the circumstances of each patient's admission to hospital, the reasons for any transfers made by the patient to other hospitals, the influence of demand pressures on decisions about the management of each patient, the place to which patients were discharged on leaving the hospital, their requirements for care at the time of discharge, and the arrangements (if any) which had been made to assist their discharge.

Each patient in the study who was discharged alive from the hospital was subsequently interviewed in his or her own home within two or three weeks of discharge. Follow-up interviews were carried out with 254 of the 407 patients whose progress through the hospital had been reviewed, and they elicited information about the patients' experiences of hospitalisation and about their recovery and rehabilitation since leaving the hospital.

The study produced a variety of results. It confirmed the impression gained from the literature that the large variations in hospital use between the married and the non-married stem both from the greater clinical need for hospital care among the latter and from their more extensive experience of the kinds of social circumstances that appear to influence decisions about admission and discharge. However, the study also revealed that the use of beds for primarily social reasons is not confined exclusively to non-married patients; indeed, some elderly married patients, by virtue of the frailty of their spouses, their reduced chances of being transferred to convalescent care and their lower uptake of community services, actually experienced more social difficulties than many elderly non-married patients. The mere presence of another household member was not a necessary guarantee of an adequate level of social care in the home, and conversely, the absence of other household members was not prima facie evidence of the inadequate availability of care. Patients in the study who lived alone did not appear to have any special difficulties on leaving hospital, but this was partly a reflection of the greater amount of time they spent in hospital and of their increased take-up of community services on returning home.

Another set of conclusions yielded up by the study concerned the interpretation of routine data on hospital use. For example, the data in the Hospital In-Patient Enquiry on lengths of stay are based upon the durations of stay in each particular facility, and these may be very different from total durations of hospitalisation in contexts where a high rate of transfer typically occurs between one type of hospital and another. In this study, where extensive use was made of a convalescent hospital for surgical patients, almost three times as many non-married as married patients were transferred to that hospital from the surgical wards. Comparisons of lengths of stay between different areas or different groups of patients will be distorted if they fail to take account of the transfer rates between hospitals. The study also found that at least 7% of the patients had been readmitted to hospital during the five months of the fieldwork, principally, it seems, for maintenance therapy. These regular admissions, like the transfers, also appear in the HIPE statistics as separate admissions, thereby

distorting any conclusions about the number of people in different population groups who are admitted to hospital during the course of a year.

A third set of conclusions concerned the way in which the tempo of the hospital's work, and its pattern of throughput of patients, was constrained by the pressures of demand within its catchment area. The supply of beds in the study hospital was taut in relation to the demand for them, and the doctors were under pressure to maximise the throughput of patients. There was some evidence that the study wards were characterised by a fairly high level of clinical severity on admission and a relatively low level of recovery at the time of discharge. Such operational circumstances tend to inhibit the use of beds for social reasons and thus to diminish the variations in use between groups of patients with different social characteristics. In this study, for example, only 10% of the total bed-days used by the medical patients and only 5% of those used by the surgical patients were judged to be for social or administrative reasons (excluding the time spent in the convalescent hospital), and whilst the study population accorded with the national picture in having higher admission rates among the non-married than the married patients, it differed from the general pattern in failing to produce significant variations between their average lengths of stay. It was hypothesised that the national pattern is more characteristic of hospitals with a relatively good supply of beds than of those (such as the study hospital) with a taut supply.

The prospective case study

The second of the two studies described in the 1974 project proposals was a prospective case study among a small group of elderly people in the community. The proposals described the aim of this study as being 'to enable changes in social and medical status to be recorded over a period of time and used as background data in evaluating contacts with social and medical care agencies... It will be essentially a series of in-depth exploratory case studies, intended to provide qualitative rather than quantitative material which will be of value in highlighting significant events, suggesting further hypotheses, and linking all the elements in the utilisation process together in the same group of people ... It should permit a more detailed study of the elements of the process than would be possible from a cross-sectional study.'

This report is an account of that study.

FEATURES AND OBJECTIVES OF THE STUDY

Features

The study reported here embodied three distinctive features that complement the hospital study. First, it was based in the community: the participants in the study were selected from the lists of general practitioners, and the interviews were carried out in their own homes. By defining the participants in terms of the general population rather than of patients who are admitted to a particular form of care, it is possible to contrast the use made of a wide range of services by people in different marital and household circumstances. In this respect, particularly, the study complements the hospital study, for whilst the latter was able to assess the relative effects of clinical and non-clinical influences on the passage of patients through the hospital, it could say nothing about those who were not admitted to hospital, and it was limited in its capacity to trace the cumulative effects of key events or situations over time.

Second, the community study was prospective, not cross-sectional. The respondents were interviewed twice a year for a period of three years, and the results are presented in this report in a way that enables the fortunes of individual people to be traced over this length of time. Hence, although the study was concerned with many of the features of the life of elderly people that have been the foci of other investigations (e.g. Hunt, 1978) it has a dynamic quality that cannot be fully captured in a cross-sectional survey. This study has enabled changes in perceived health status, functional ability, household structure and social support to be monitored through time, and their cumulative effects upon the life-style and behaviour patterns of elderly people to be assessed.

Third, the study concentrated more on the construction of case studies than on the compilation of statistical data. The study aims principally to be qualitative rather than quantitative. In the report that follows, quantitative methods of presenting results are not ignored, but the small number of subjects involved in the study means that such methods are less useful than the descriptive approach of the case study. In view of the exploratory nature of the investigation, it was felt that this latter approach might be a more profitable way of coping with the uncertain boundaries of the project and of sifting the potentially relevant from the probably irrelevant.

Objectives

The study had two principal objectives. The first was simply to provide a descriptive overview through time of the social and medical wants and resources of a small group of elderly people living in the community, emphasising in particular the variations existing between those in different marital status groups. The second objective was to use this descriptive material to supplement the more focused results emerging from the hospital study. Ideally, the two studies should have been merged into a single, large-scale prospective study of a sample of elderly people in the community, applying the utilisation review whenever a participant in the study was admitted to hospital. Such a study, however, would have been prohibitively costly, and would have required a large number of subjects in order to produce a sufficient number of hospital admissions. The decision to focus instead upon a cohort of hospital admissions as one distinct study and upon a prospective study of a small number of elderly people in the community as a second distinct study represented a compromise solution. There are, therefore, insufficient cases in this prospective study to test hypotheses in any formal sense or to make valid generalisations about the population as a whole, but it is hoped that sufficient cases have been included to identify potentially important associations and to suggest hypotheses that might be formally tested elsewhere.

METHODS

Sampling

The project proposal specified that the study would comprise about 100 people aged 65 and above living in the Canterbury District Council area. Although a representative sample was not strictly required, it was thought appropriate to aim for as random a sample as possible, spread fairly widely throughout the District. Of the two most obvious sampling frames (the listing of recipients of National Insurance retirement pensions and the index of patients held by the Family Practitioner Committee), the latter was chosen partly because of its easier accessibility and partly because it enabled the participants' family doctors to be identified and contacted before the interviewing began. The Administrator of the Family Practitioner Committee kindly agreed to allow the index to be used for this purpose subject to the approval of the general practitioners concerned, and a two-stage sample was carried out. In the first stage, the 56 doctors who in February 1975 were included in the Medical List as practising in Bridge-Blean, Canterbury, Whitstable and Herne Bay were listed, and eleven names were selected by simple random sampling. It was the intention at this stage to aim for a target study population of approximately ten patients from each of ten doctors, with an eleventh doctor to be used throughout the study as a pilot practitioner. However, three of the doctors, when approached initially by the FPC Administrator, felt unable to participate in the study; two gave no reasons to the researchers, and one declined to take part because of his impending retirement. Since the active support and approval of the participants' GPs was regarded as an indispensable element of the research procedure, these three doctors were discarded from the study and replaced by a further three, selected at random from the remaining practitioners in the District.

On completion of the first stage of the sample, therefore, eleven doctors had been selected who were willing to collaborate, one of whom had been randomly chosen as the pilot practitioner. Of these eleven, five were practising in the former County Borough of Canterbury (including the pilot practitioner), three were located in the former Herne Bay Urban District, two were practising in the former Bridge-Blean Rural District, and one was in the former Whitstable Urban District. The second stage in the sampling procedure involved the selection of patients' names from the index of patients for each doctor held by the Family Practitioner Committee. The index was not arranged in a manner ideally suited to this purpose, for the

patients were arranged in alphabetical order of surname, with no other distinction for age, sex or marital status. However, the notional number of patients aged 65 and over on each doctor's list was already known for the purposes of paying the capitation fee, and these patients were clearly identifiable from the cards. It was thus possible to work through the cards for each practitioner and make a systematic selection of patients of the required age. This task was carried out by FPC clerical staff, and no checks could be made on the accuracy of their work. All that can be said is that the initial letters of the surnames of the patients drawn from each practice were ranged evenly throughout the alphabet, which would be expected from the nature of the sampling frame.

The target number of names to be selected from each doctor's list presented a problem with few guidelines. Although an aggregate sample size of some 100 people had been specified in the original project proposal, there was nothing immutable about this number: it merely represented a subjective estimate of the probable minimum number of participants required to make the study worth conducting. It was clear, however, that more than this number would need to be selected at the outset of the study in order to maintain the target over the three years. Some of the names drawn from the FPC index would be of people who had died or moved from the District, some would refuse to take part in the study from the outset, and some would die or move or drop out of the study after completing the first interview. Although some guidelines were available about the probable magnitude of the first two sources of loss, the latter source was virtually non-quantifiable. Having regard to these factors, the decision was taken to draw 20 names from each doctor's list; in the event, it proved to be a very reasonable number.

Publicity

Before the study began, each general practitioner was contacted, and an information sheet about the project was sent. The sheet explained the purpose of the study, and set out the co-operation requested from the doctors. In addition to requesting their general approval to interview their patients, the doctors were asked to keep simple records of the number of consultations made by each participant, and to notify the research team whenever a participant was admitted to hospital. (In fact, it proved impossible to sustain the doctors' commitment to supplying this information.) When the consent of each practitioner had been obtained, a letter was sent to the prospective participants inviting their co-operation and explaining that an interviewer would call within a few days.

Before each subsequent round of interviews, the doctors were informed of the names of their patients remaining in the study, and they were sent copies of the interview schedule to be used in that round. It was helpful on occasions for the interviewer to be able to reassure respondents that their doctors knew about the study and were familiar with the questions being asked. The second, third and fifth interviews proceeded without an introductory letter, but prior to the fourth and sixth interviews further letters were sent to all the participants remaining in the study, thanking them for their help thus far and expressing the hope that they would continue to co-operate in the forthcoming interview.

Interviewing

The interviews among the pilot group were used solely to test out the questionnaires and the operational mechanics for the main study. Throughout the study the pilot interviews ran a few weeks ahead of the main cohort. None of the substantive material from the pilot interviews is included in this report.

The first pilot interviews were carried out in June and July 1975, and were conducted by the author and a visiting nurse from the University of Massachusetts. After making necessary changes to the schedule, the first round of interviews in the main study began in November 1975 and continued to March 1976. The remaining five interviews with each respondent were conducted, as nearly as possible, within six months of the preceding interviews. Thus, the second interviews took place between May and September 1976, the third between November 1976 and March 1977, and so on. The final interviews were completed in October 1978.

Apart from the pilot interviews, all the interviews were conducted by one female interviewer who had originally been recruited with six others to work on the follow-up interviews in the hospital study. None of the interviewers had had any extensive experience of research interviewing, and all underwent a three-day office-based training course, followed by observed trial interviews. The training course, for which a manual was specially prepared, included intensive training on the principles of research interviewing as well as specific instruction in handling the schedules used in the project. No interviewer began a study assignment until the research staff were thoroughly satisfied with her competence. On completion of the interviewers' training, one interviewer was invited to work on the community study rather than the hospital follow-up study, and she was given further training on the objectives and methods of this study.

Processing and analysing the data

The schedules from the first round of interviews were processed by formal survey methods. They were double-coded, and the data were transferred via coding sheets and cards to tape for computer analysis using the SPSS package. It became clear in handling the data, however, that a formal process was unsuited to the nature of the data, and the computer analysis was abandoned in favour of direct abstraction of the material from the schedules. The same method was used in handling material from each of the subsequent interviews. It was a time-consuming method of data processing, but it enabled much fuller case-studies to be constructed than would have been possible with conventional methods of survey analysis.

Response rates

The participation rates throughout the course of the study are set out in Table 1.* The sampling procedure produced an initial total of 200 names for use in the main study. Of these, 126 were interviewed successfully in the first round and agreed to participate in the study. The balance of 74 names was made up as follows: 14 were reported by the GPs to be no longer on their lists because of death, removal, or (in three cases) because the doctors claimed that the names were totally unknown to them; 10 had died by the time the interviewer first called; 11 were reported by neighbours to have moved away from the area; 30 refused to be interviewed; four were totally untraceable; in three cases the interviewer was unable to make any contact with the house after repeated calls; and in two cases the listed addresses were non-existent. It is interesting to note in passing, therefore that at least 35 of the 200 people selected from the FPC records (18%) were no longer on the lists of the doctors against whose names they were recorded, and the number could be as high as 44 (22%) if those who could not be contacted for one reason or another were likewise no longer registered with the doctor in question. If the 35 'ineligible' names are subtracted from the denominator of 200, the enrolment rate into the study was 76%; if the higher number of 'ineligible' names is accepted (44), the enrolment rate increases slightly to 79%. Although the nature of the study is not primarily quantitative, and the magnitude of the response rate is therefore not a matter of overwhelming importance, it may be helpful to the reader to know that the elderly people enrolled into the study were reasonably representative of all those aged 65 and over in the Canterbury District Council area of that time. This statement is substantiated in the next section of the report.

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* All tables are grouped together at the end of the report.

Between the completion of the first round of interviews and the end of the study, 34 of the original 126 respondents had ceased to be participants in the study: 10 had died, 3 had moved away from the district, 16 had refused to continue, and 4 had become permanently hospitalised and one could not be contacted. In addition, one or two participants could not be contacted at each interview, although in most cases contact was re-established at the subsequent interview. Of the 126 people who were interviewed in the first round of the study, 88 completed all six interviews, 6 completed five of the interviews, 5 completed four interviews, 8 each completed three and two interviews, and 11 completed no further interview beyond the first. Expressing these figures as a proportion of the 165 people eligible for inclusion at the outset of the study, 53% remained in the study for its full duration, 23% remained in for part of its duration, 18% refused to participate at all, and 6% could not be contacted at all.

Cost

The fieldwork costs of the study were quite low. From the beginning of her training in October 1975 to the completion of the interviewing in October 1978, the interviewer received total fees and travelling expenses (at the standard rates paid by the University for work of this nature) of £1,203, yielding an average cost of £1.91 per completed interview. This figure is low in relation to the fieldwork costs of other surveys. The average cost per follow-up interview in the hospital study, for example, was just over £4. The low cost in the present study is thought to reflect four factors not always present in interview surveys: the geographical clustering of respondents' addresses, the restricted size of the survey area, the flexibility of interviewing dates, and the likelihood of elderly respondents being at home at the first call. All of these factors enabled the interviewer to work more efficiently than is often possible.

MARITAL STATUS, AGE AND SEX

At the outset of the study

The marital distribution within sex and age groups of the 126 respondents at the outset of the study is shown in Table 2, where it is compared with the distribution for all people aged 65 and over living within the study area at the time of the 1971 census. Among the men in the study, at least three-quarters of those in each age band up to 79 were married; above this age, half of the men were married and a third were widowed. These proportions seldom differ by more than a few percentage points from those of the male population of the study area. The female participants had a different distribution, and also corresponded less closely than the men to the population. As would be expected, relatively fewer women than men were married, the proportion dropping to a quarter among those aged 75-79 and to only one in six among those over 80. Conversely, the proportion of widows was between two-thirds and three-quarters in the highest age bands, dropping to under a half in the lower bands. There were relatively more single women than single men in the study. Comparison of the marital distributions of the women in the study group and in the population aged 65 and over shows an over-representation of widows among the study group (especially in the 65-69 and 75-79 age bands) and an under-representation of married women (except in the 70-74 band).

Table 3 shows, for men and women separately, the percentage distributions between quinary age groups of the respondents and of the total population aged 65 and over. As with the distribution by marital status, the differences between the respondents and the population were quite small, although in view of the small numbers involved it would be misleading to press the comparisons too far. It seems reasonable to conclude that, notwithstanding the small size of the study group, the marital and age distributions of the respondents at the outset of the study were broadly comparable to those of the population aged 65 and over residing within the study area at the time of the 1971 census.

Marital history

Respondents who were identified at the first interview as being widowed were asked two questions at that interview about their experiences of widowhood. The first question concerned the length of time for which they had been widowed. The evidence summarised earlier in this report showed that the early years following the death of a spouse bring an increased risk of illness and even death in the surviving partner. However, if these years are successfully negotiated, ways of coping with the new status may emerge which eliminate any

excess dependence upon health and social services. The published data are inconclusive on this point: the HAA analyses, for example, identified the widowed in all age groups as relatively high users of hospital resources, but the data offered no indication of how much of this 'excess' use was associated specifically with the post-bereavement period.

Of the 46 widowed respondents at the outset of the study, 25 had been widowed for at least ten years at the time of the first interview. The remaining 21 widowed respondents had lost their spouses within the previous ten years, 11 of them within the previous five years. The potential vulnerability of this latter group is emphasised by the fact that nine of the 11 most recently widowed respondents were living alone at the time of the interview. This compares with six out of 11 among those widowed for between six and ten years and 12 out of 25 for those widowed for more than ten years. Thus, although the numbers are small, they do suggest that elderly widowed people may in fact be more likely to be living alone in the first years following bereavement than later on, thus adding a social dimension to the epidemiological evidence of the increased risks of illness following the death of a spouse. Other evidence presented later in this report (page 34) confirms this suggestion.

The widowed respondents were also asked whether their health had been affected in any way when their spouses had died. The question clearly runs the risk of eliciting biased and distorted answers as a result of memory decay and the false attribution of cause to effect, but it was hoped that any major disturbances to health would be remembered and reported. In fact, only a third of these respondents mentioned any ill effects at all, and most of these were fairly mild symptoms of the kind that might accompany any major change or stress in life: sleeplessness, nervousness, shock, strain, inability to work. Only five respondents reported specific conditions that were attributed directly to the death of a spouse, and only two reported specific family intervention to aid the bereaved person. One woman said that her relatives had been worried about her and that her son-in-law had insisted upon the key being left with neighbours. In the second case the respondent's inability to cope had resulted in her daughter and son-in-law returning to live with her.

Changes during the course of the study

A similar proportion of men and women were lost to the study between the first and final interviews. Of the 42 men interviewed in the first round, 12 (29%) failed to remain in the study for its full course, and of the

84 women at the outset of the study, 22 (26%) likewise failed to complete all six interviews. Relatively more losses occurred among the older respondents: for example among those aged between 65 and 69 at the outset of the study, 13% dropped out, for one reason or another, before the sixth interview, compared with 50% of those aged 80 and above at the outset. However, this difference is explained principally in terms of the higher proportion of refusals at the upper ages, not (as might be expected) in terms of a higher death rate.

Relatively more non-married than married respondents were lost to the study between the first and final interviews. One fifth of those who were married at the outset of the study failed to remain in the study for its full duration, compared with a third of those who were widowed or single at the outset. The major reason for the loss of the widowed respondents was death, and for the single respondents, removal from the district.

Changes in the ages of the respondents during the course of the study are self-evident, but the marital structure of the group also changed slightly. Seven respondents who were married at the time of the first interview were known to have been widowed at some time during the course of the study. Five of them were women and two were men. Prior to becoming widowed, six of these seven respondents had been living just with their spouses and one had been living with her husband and elderly mother. After widowhood, the six continued to live as single-person households for the duration of the study, and the seventh lived as a two-person household with her mother.

Apart from these seven respondents who became widowed, two other changes in marital status were known to have occurred. One man, who at the outset of the study was married and living with his wife, became separated and then divorced. On separating from his wife, he left home and became a one-person household. The second change in marital status occurred to a woman who was single at the outset of the study and living with her widowed brother, but who subsequently married and set up a two-person household with her new husband.

An advantage of a prospective study is that it enables events to be chronicled as they occur over a period of time. In this particular study, the effects of a change in the marital status of a small number of elderly people can be described in some detail.

Mrs. Clarke* was 70 at the time of the first interview and living with her husband, a retired caretaker, in a bungalow on an estate occupied largely by pensioners. They had moved there a few months earlier from Suffolk because they wanted to be by the sea. The Clarkes had been married for 43 years and had two married children: a son living five miles away whom they saw once or twice a week and a daughter living near their previous home in Suffolk. The only other relatives with whom Mr. and Mrs. Clarke were in regular contact were two older sisters of Mrs. Clarke, both incapacitated by ill health, who could be visited only because Mr. and Mrs. Clarke had a car. Their neighbours were all pensioners, and although several were known to them, only the widow next door was mentioned as being specifically likely to help if required.

Mr. and Mrs. Clarke regarded themselves as in good health at the first interview. Mrs. Clarke suffered from diabetes, for which she was receiving regular outpatient supervision, and she saw her GP from time to time for what she described as 'shushing in my ear'. She also reported a 'bit of rheumatism, but only when I'm in bed.' But she had no difficulty getting about either indoors or out of doors, and she was able to perform the normal tasks of self-care with no difficulty at all. Mr. Clarke, who was 71 at the time, was described as being 'in very good health'. They were, according to Mrs. Clarke, a gregarious couple, full of life.

Mr. Clarke died four months after the first interview. When Mrs. Clarke was next seen, two months later, she talked about her social and health difficulties. Socially, she expressed concern about money and about possible loneliness in the future. She had had to sell the car and described herself as 'very cut off'. She had few friends in the neighbourhood, as the Clarkes had moved to their bungalow less than a year earlier from Suffolk, and she thought it would be difficult to get out to see people because of the bus fares. This difficulty was mentioned particularly in relation to her two sisters. One, who lived a few miles away, was staying temporarily with Mrs. Clarke at the time of the interview, but when she returned to her own home Mrs. Clarke hoped to be able to visit her once a week by bus. This sister was badly incapacitated with arthritis. The other sister, who lived in London, suffered from angina, and Mrs. Clarke said that, no longer having a car, she may not be able to see her.

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* All names are fictitious, and other details not vital to the purpose of the study have been changed to conceal the identity of any individual respondent or doctor.

The changed social circumstances of Mrs. Clarke were further reflected in her replies to the question: 'If you were ill, or coming home from hospital, and you had to stay in bed for a week, how do you think you would manage?' At the first interview her reply had been: 'My hubby would wait on me. He has done it when I had babies at home or in bed with bronchitis.' At the second interview Mrs. Clarke's response was: 'I wouldn't be able to. I don't know if the neighbours would (help). No idea.'

In addition to these social changes, Mrs. Clarke reported various changes in her health. Although she had no difficulty in performing the daily tasks of self-care, she did on this occasion mention some problems she was experiencing in getting to the shops. It was a long way to walk and very tiring in the summer heat. She now described her general health as 'fair'. In addition to her diabetes, for which she was still receiving out-patient supervision, Mrs. Clarke saw her doctor about a week after her husband's death at the suggestion of her daughter. He had prescribed Valium and sleeping tablets, and Mrs. Clarke had returned for a repeat prescription a week before the second interview.

At the time of the third interview in December, Mrs. Clarke, now 71, was much more cheerful. She had many outside activities including an over-60s club, and she felt well-supported by her neighbours. She still grumbled about the distance she had to walk to the shops, but she was able to complete the journey most days except when there was snow and frost about. Mrs. Clarke had seen her GP once during the previous six months when her leg was cut by a passing car, but apart from that she had made no further use of the health services. She reported no unmet needs for help. As she said, 'I'm getting on all right and managing on my own. I've got to!'

The next interview, in June, saw Mrs. Clarke in much less happy circumstances. She said she was miserable, depressed, lonely, and unable to cope. She dreaded the future and had nothing to look forward to. She was worried about the jobs that she was unable to do in the house and the garden, and she criticised the Council for not carrying out repairs to the bungalow or keeping the estate clean. She felt cut-off at the end of the terrace, with nothing to look at. The support of her neighbours had dwindled, and the only one with whom Mrs. Clarke was close was the woman next door, who had also recently been widowed. She was bitter about her son, who gave her little attention. She said, 'If you have children, they don't want to know you or hear your troubles'; but she added, 'It's not fair on them really. It's their own lives they lead.' Mrs. Clarke also said that her faith in her doctor had been undermined: he hadn't got to her husband before he had

died, and he was unwilling to visit. 'He's always making excuses.' The over-60s club had closed because of the lack of an organiser, and this had disappointed Mrs. Clarke very much.

Mrs. Clarke said at this fourth interview that she had not been very well. As well as reporting feelings of misery and depression, 'on account of my husband', she had suffered from a throat infection which she thought might have been 'flu. She found it more difficult than before to get to the shops and to do her housework, and she would have liked some help in the bungalow. But, as Mrs. Clarke said, she had nobody to rely on. 'The neighbours don't want to know if they can help it.' She had seen her GP on three occasions in the previous six months, and she was also visiting the out-patient diabetic clinic. She was receiving repeat prescriptions of Valium for her nerves.

At the fifth interview, almost two years after her husband's death, Mrs. Clarke emphasised her loneliness and isolation. A new club had opened up near her home, but the weather had so far prevented her attending. Her only social contact was a weekly visit to a church social in a 'very cold hall', to which her son took her. Mrs. Clarke again complained about the inaccessibility of shops. She was finding it increasingly difficult to walk to the shops and back, and even the walk to the bus-stop was tiring. She said that she sometimes now used a taxi to get to the shops, though she could ill-afford the fare. There had been occasions, she said, when she had been unable to shop at all, and had had to rely on eggs and soup.

Mrs. Clarke also reported a further deterioration in her health. She said it was 'not too good' and had got worse in the previous six months. She said she was 'shaky' and 'nervy', and during the week of the interview she had had a pain in her back and neck brought on she said, by cleaning the oven out. Reflecting on her general state of health, Mrs. Clarke said: 'I don't feel so good as I used to. I used to feel full of life. No life in me now. I get very down. Suppose it's being on my own. I like to mix.' Nevertheless, Mrs. Clarke said at this fifth interview that she had not consulted a doctor at all in the previous six months, and was not in regular receipt of any statutory or voluntary services.

The final interview with Mrs. Clarke took place almost exactly three years after the first. She was now 73, and had been widowed for two years and eight months. At the interview, Mrs. Clarke felt that her health had again got worse during the previous six months. She said that her diabetes

made her tired when walking, and that her nerves were 'bad to what they was. I get very worried at the least upset or change.' She was anxious about intruders on the estate. Shortly before the interview, Mrs. Clarke had been ill with 'flu. One of her sisters had managed to look after her, and although her doctor had arranged for someone to do her shopping, the helper had not in fact arrived until Mrs. Clarke had recovered. The sister was now visiting her several times a week, and her son also continued to visit her and to help her with the house-cleaning. She also said that she had friends who visited her, but she didn't like to ask their help with anything in case they might not come again.

Mrs. Clarke again mentioned the difficulty she had in reaching the shops. 'I have to have a taxi to the surgery or to town. Can't walk all that way. There is a bus, but it's so far to walk to it and while you wait you might as well go all the way. It all costs money too. The fares are up, so I share the taxi.' Mrs. Clarke also referred again to the difficulty she had with housework. 'I can't do housework like I used to. I do a little and then I have to rest. I get very tired when I start doing anything.' She was still not receiving any help from voluntary or statutory services, but she did say on this occasion that she had seen her doctor on several recent occasions because of her nerves. She also mentioned, for the first time, a cataract.

Looking back over the previous three years, Mrs. Clarke commented at the close of this final interview that 'since my husband died I get lonely now. Through losing him I am like I am. Such a shock. He died suddenly.'

Mrs. Clarke's story illustrates many of the themes and problems with which this study is concerned, and throws the light of the case study on several of the issues touched upon in the earlier review of the literature. Widowhood seems undoubtedly to have affected Mrs. Clarke in several ways. From being a woman in seemingly good health for her age (apart from her diabetes), and as she herself put it, gregarious and full of life, she became lonely, isolated, nervous, tired and unable fully to cope with her household chores. In her closing remark in the survey she consciously attributed these changes to the death of her husband. Yet in telling the story of her first three years of widowhood, Mrs. Clarke revealed a number of different strands in the causal chain. Her geographical location was important. The bungalow to which the Clarkes moved shortly before Mr. Clarke's death was distant from shops and other facilities, and whilst the problems which this posed were minimised when Mr. Clarke was alive and could drive the car, they were manifest as soon as his widow was forced to rely upon

alternative sources of transport. The problem was intensified by the rising costs of both public and private transport, and by Mrs. Clarke's diabetes which she thought accounted for the increasing tiredness she felt in walking not only to shops themselves, but also to the bus-stop. There were occasions when she was unable to shop for the food she needed.

Mrs. Clarke's family structure represented another strand in the chain of events. It will become apparent later in this report that the day-to-day care provided for elderly married and widowed people by their daughters is an important element in their well-being, yet Mrs. Clarke's only daughter lived a good distance away, and only visited her mother on a few occasions each year. Mrs. Clarke gave no indication during the three years of the study that she received any care or support from her. Her son lived much nearer to her, and visited her regularly during the course of the study, but he did not appear to have given the close personal care that daughters often do. Mrs. Clarke expressed her bitterness on several occasions about his lack of attention, although she said later that he was taking her regularly to a social club and was helping with household tasks requiring bending and stretching. The only other relatives whom Mrs. Clarke mentioned during the whole course of the study were two older sisters, both of whom were incapacitated and who at the outset of the study appeared to need more support than the Clarkes themselves. However, during the course of the study the sister who lived nearby became a fairly frequent visitor, and even stayed with Mrs. Clarke on one occasion, but she does not seem to have contributed to the household or gardening chores or with the shopping which troubled Mrs. Clarke increasingly as time went by.

Mrs. Clarke's neighbourhood support system was less well-developed than with many of the respondents. She had been living in the bungalow for less than a year when she was widowed, and had not cultivated any extensive friendships. She felt increasingly cut-off and lonely as time went by. Her closest friend was another elderly widowed neighbour, and whilst she said at one interview that she got on well with all her neighbours she also said that she would not ask for their help. A social club for older people provided an important stimulus for a short period of time, but when it closed no satisfactory substitute was found. Mrs. Clarke did not find her doctor very helpful or supportive, although he had on at least one occasion contacted a voluntary organisation to arrange for Mrs. Clarke's shopping to be done.

As far as Mrs. Clarke's health was concerned, her own accounts suggested a greater change in her perceptions of ill-health than in any specific

disorders. At almost every interview following the death of her husband she said that her health had deteriorated during the preceding six months, but she did not mention many major changes in the specific disorders from which she suffered. Apart from occasional references to rheumatism and respiratory infections, Mrs. Clarke's main health problems, as she reported them during the course of the study, were diabetes and nervousness. She had been a diabetic for many years before becoming widowed, but seemingly had adjusted satisfactorily to it. The loss of her husband seems to have intensified the impact on her life of the limitations which the condition generated. In particular, the tiredness which Mrs. Clarke felt when walking long distances, and which she attributed at least in part to her diabetes, created a deep sense of isolation which had not been apparent when her husband had been alive and the car was available. Mrs. Clarke's references to a general state of nervousness and anxiety became increasingly numerous as time went by, and it is probable that this reflected the sense of personal loss and loneliness following the death of her husband. In short, Mrs. Clarke's apparent deterioration in health may be explained less in terms of the onset of new disorders than of the way in which the social consequences of being widowed heightened the effect upon her life of existing conditions.

Finally, it may be noted that the pattern of Mrs. Clarke's use of health services changed in some respects following her widowhood, but not in others. At no time during the three years of the study did Mrs. Clarke enter hospital as an in-patient, nor was she on the waiting list for in-patient admission. She reported three out-patient attendances during the three years, but all were at the diabetic clinic and were part of a long-established pattern. What changed was the frequency of her consultations with her G.P. During the six months prior to the first interview, Mrs. Clarke had visited her GP once only, but during the remainder of the study her visits averaged 1.8 in each six-month period. Some of these post-widowhood visits were said to be for reasons which do not appear at face value to be intimately connected with the consequences of her husband's death, but the majority of them were reported to be connected with the nervous state which Mrs. Clarke did attribute directly to her bereavement.

HOUSEHOLD STRUCTURE

The literature reviewed earlier in this report suggested that part of the explanation for the variations in hospital use between marital groups may be the ways in which variations in household structure influence the decisions that are taken about the admission and discharge of patients. It has been suggested, for example, that elderly non-married patients are more likely to be living alone and less likely to command familial or neighbourly support at times of illness than married patients, and that they are consequently more likely to be admitted to and retained in hospital for reasons that are broadly classifiable as social. Whilst there is substantial evidence to support the general thrust of the argument, some of its details and assumptions remain obscure. There is some evidence, for example, that the argument is stronger in its application to single than to widowed people, and there is also evidence that elderly married people may actually be more vulnerable at times of illness than the non-married if, as well as coping with their own illnesses, they are also required to care for a frail or incapacitated spouse.

Before turning to the findings from the present study, the results from two other recent studies are relevant in structuring the context of the analysis. Hunt's (1978) survey of 2,622 people aged 65 and over living in private households in England in 1976 provided information on the household structure of the respondents. Three-quarters of all the respondents in the survey were living in one of two household types: 30% were living alone and 44% were living with a spouse only. These proportions differed, however, between men and women and between those of different ages. More than twice as many women as men were living alone (39% compared with 16%) and conversely, only half as many women were living with a spouse only (32% compared with 62%). The proportion of people living alone increased with age, from 25% of those aged 65-74 to 44% of those aged 85 or over. Among respondents who were living alone (that is, 30% of the whole sample) 83% were widowed, 13% were single and 4% were divorced or separated. Expressing these figures the other way round, 65% of all widowed respondents were living alone compared with 44% of all single respondents and 52% of the divorced or separated. These figures not only reveal the extent among the community of elderly widowed people living alone (they actually constituted a quarter of all respondents in the survey), they also show a somewhat higher proportion of widowed than of other non-married people living by themselves. When these figures are set beside the evidence of the higher mortality and morbidity risks that widowed people experience, the potential vulnerability of this group of elderly people is evident.

The parallel study to the present one (Morgan, 1979) collected similar information to Hunt's for the group of 254 elderly people interviewed following their discharge from general medical or surgical care. The results are not directly comparable between Hunt's and Morgan's studies because they were dealing with different populations, but close similarities nevertheless emerge. As in Hunt's survey, three-quarters of the respondents in the hospital follow-up study were living in one of two household types: 28% were living alone and 48% were living with a spouse only. (The corresponding proportions in Hunt's survey were 30% and 44%.) Of those who were living alone, 73% were widowed, 20% were single and 7% were divorced or separated. (The corresponding proportions in Hunt's survey were 83%, 13% and 4%.) Expressing these figures the other way round, 73% of all widowed respondents were living alone compared with 61% of all single respondents and 50% of the divorced or separated. (The corresponding proportions in Hunt's survey were 65%, 49% and 52%.) The similarity between the two studies in the matter of household structure is striking.

The additional dimension in Morgan's study was to relate these features of people's household and social networks to their use of the hospital. It was found that the absence of other household members was an important factor in the doctors' decisions about admitting and discharging patients, and was the main factor responsible for the discharge delays of single and widowed patients. Among patients living in multi-person households, the major factor producing delays in discharge was the temporary incapacity of other household members to cope, whether because of ill-health or other commitments. These results are important in indicating not only that people in different marital categories are distinguished by their household and social networks, but also that such distinctions contribute to the ways in which they use hospitals. Moreover, this effect was not confined to the non-married or those who live alone: there was evidence from the study that married people experienced some of the greatest difficulties as they were more likely to be sharing a household with a person of advanced age than were non-married people in multi-person households, and they were less likely to be transferred to a convalescent hospital or to receive domiciliary services than non-married people living alone.

Household composition at the outset of the study

Respondents in the present study were asked at each interview about the number of people usually living with them in the same household. A household was defined to include all people at the address who normally ate at least one daily meal together. The household compositions of respondents

at the outset of the study are shown in Table 4, the respondents being classified by their sex and marital status. Of the 126 people interviewed in the first round, 36(29%) were living alone and 55(44%) were living with a spouse only. In spite of the small numbers involved, these proportions are identical to those in Hunt's survey. Of 36 respondents who were living alone, 72% were widowed, 19% were single and 8% were divorced. These proportions are identical to those in Morgan's study and very similar to those in Hunt's survey. Expressing them the other way, 57% of the widowed respondents at the outset of the study were living alone, as were 54% of the single and all of the divorced respondents. Compared with the other two studies a rather lower proportion of widowed people and a rather higher proportion of single people in the present study were living alone at its outset.

Table 4 shows in some detail the household compositions, at the outset of the study, of people in each marital category. Of the 64 married respondents, 55(86%) were living in two-person households, in each case the other person being the respondent's spouse. Forty of these spouses were 65 years of age or above, and 15 (almost all of them being the younger wives of male respondents) were under 65. Of the nine married respondents living in households with more than two people, six were living with their spouses and unmarried children; one was living with her husband and mother; one was living with his wife, daughter and son-in-law; and one was in a household comprising his wife and three non-related people. At the outset of the study, therefore, seven of the 64 married respondents were living in households with their children, but only one was living with a married child.

Of the 46 widowed people interviewed in the first round, 26 were living alone (22 women and 4 men), although two of these were in warden-assisted accommodation. Twelve of these 26 were aged 75 or more and five were aged 80 or more. This group of older widowed people living alone, comprising about one in ten of all people aged 65 and over in the community appear to constitute a potentially vulnerable section of the population, although it remains to be seen how much care and support was available to them. The household compositions of the remaining 20 widowed respondents were varied. Six were living with married children or grand-children and their families: in five of these six cases the child was a daughter and in only one case a son. Three widows were living with their non-married children, three with an elderly sibling, one with a widowed mother, and one with her nephew and his family. The remaining six widowed respondents were living in households with non-relatives; in three cases the other household member was a lodger, in

two cases it was a friend, and in one case the respondent was in a group home with six other non-related residents.

Of the 13 single people interviewed, seven were living alone (five women and two men), and six were living in two-person households with a brother or sister. In all but one of these households the sibling was over the age of 69. Finally, three respondents reported themselves as divorced at the time of the first interview (two women and one man), and each was living alone.

A fairly big difference emerges from these results about the immediate living conditions of the married and non-married respondents. None of the married respondents was living alone: four-fifths of them were living with spouses in two-person households, and the majority of the remainder were living with their spouses and their married or unmarried children. Among the non-married respondents, by contrast, just over half were living alone, and almost half of these were over the age of 74. An alternative way of looking at these results, however, is to say that almost half of the non-married respondents were living in households with at least one other person, usually a son or daughter or sibling. It is therefore incorrect in relation to this particular group of people, to assume that non-marriage invariably equates with living alone.

Changes in household composition

Elderly people do not live in static households. Of the 126 people interviewed at the outset of the study, 23 (18%) were known to have changed their household composition in some respect during the three years of the study. The reasons for change were varied. As noted above (see page 24), the marital status of nine respondents changed, with consequences for their household compositions: seven became widowed, one man became separated and later divorced, and one woman married. In another six cases the changes in household composition resulted from the arrival or departure of the respondents' married or unmarried children. A further four changes resulted from a move by the respondents to some form of institutional care. The remaining four cases were varied: the sister of an elderly spinster died, the mother of a widowed woman was admitted to a nursing home, the sister of another widowed woman came to live with her and later died, and the lodger of yet another widow left, to be replaced after a year by another lodger.

The net effect of these changes in household composition was an increase in the number of people living alone. Of the 23 people whose households

changed in some way, 12 represented a change from multi-person to single-person households and only three a change in the other direction (including those admitted to institutional care). To the extent, therefore, that living alone is an indicator of social vulnerability among elderly people, attention should be paid to the significant group of elderly people who become single householders each year, especially those who become so in sudden or unexpected circumstances.

The consequences of change in household structure, especially the consequences of becoming a single-person household, may be far-reaching and complex. They will be influenced by the circumstances surrounding the change, as the case of Mrs. Clarke has illustrated, and may not always be perceived fully by the people experiencing them. Nevertheless, those who had experienced changes in their household compositions between the first and second interviews were asked at the second interview whether the change had made life more difficult for them in any way. Ten respondents had experienced such change, but only Mrs. Clarke reported substantial difficulties. Mrs. King, a widow, whose lodger had left after getting a new posting with his bank, offered the strongest comment: 'I do find I am completely alone now. The evenings are very lonely.' For some, however, the change may be positively beneficial. To Mrs. Luckins, for example, the departure of her 96-year old mother to a nursing home had come as a distinct advantage, even though she was now living on her own. At the first interview, Mrs. Luckins said that she had 'a hell of a life' with her mother, and that 'she drives me round the bend'. She was also very worried about the heating bills caused by the need to have the heating on all the time for her mother. At the second interview, Mrs. Luckins simply commented that life was 'marvellous' since her mother had left.

The health and capacities of other household members

As the case of Mrs. Luckins illustrates, the presence of another person may actually be more of a burden than a help to an elderly householder, especially if their capacity to care for the other person is diminished by ill-health or other indisposition. Both Hunt (1978) and Morgan (1979) collected information about this. Hunt included a question about the things that people particularly liked and disliked about life, and found that, among the sample as a whole, 3% particularly disliked the poor health or disability of other household members. Relatively more women than men mentioned this, as also did relatively more married people (4%) than widowed (2%), single (2%) or divorced (1%) people. Among the married respondents in Morgan's study of

254 elderly people leaving general medical or surgical care, 38% rated the health of the most healthy member of the household (other than themselves) as fair or poor, and 60% rated it as excellent or good. By contrast, among the non-married respondents living in multi-person households, only 15% rated the health of the most healthy member as fair or poor, and 76% rated it as excellent or good. It appears from both these studies, therefore, that among elderly people living in multi-person households, the poor health of other household members is likely to be a greater problem to those who are married than to those who are not, reflecting the different composition and age structures of the households of married and non-married people.

In the present study, questions were asked in the first, second, fourth and sixth interviews about the health of the other household members, where they existed. The replies confirm the general conclusions of Hunt and Morgan. Among those living in multi-person households, 45% of the widowed and 50% of the single reported no illness or disability in other household members at any of these interviews, but the proportion fell to only 25% of married respondents. The mere fact that ill-health is reported in another household member does not, however, of itself mean that that member either requires care or would be unable to give care if required to do so. Further account needs to be taken of the severity of the illness or disability, but the reports of lay-people are of limited value in permitting judgements of severity to be made. Nevertheless, an impressionistic evaluation of the reports given in the interviews about the health status of other household members strongly suggests that the most serious health problems occurred among the elderly spouses of married respondents. Some illustrations of this are presented later.

Household structure: some illustrative case studies

The evidence reviewed and summarised above suggests that elderly people who live alone, or who experience a sudden change in their household structure, or who have responsibility for the welfare of a sick or incapacitated member of it, may be exposed to stresses and strains that threaten their own health and impair their capacity to cope with their own illnesses. This section aims to illustrate these themes through the presentation of cases constructed from the study. The reader should bear in mind, however, that the cases are not in any sense representative or typical of the respondents as a whole. That is not possible, for the circumstances of each person are unique. In describing the cases that follow as 'illustrative', the point is intended

that they draw attention to the kind and variety of experiences among the study population, rather than the most common or most problematic experiences.

Two cases illustrate the circumstances of people living alone. Mrs. Perkins, 76 a Canadian, had been living in a block of old people's flats for two years at the time of the first interview. Her husband had died suddenly 11 years earlier after 35 years of marriage. Mrs. Perkins had no children, and all her family were in Canada with the exception of a widowed sister, aged 74, living a dozen miles away. For many years the two sisters had visited each other regularly each week. Mrs. Perkins generally described her health throughout the three years of the study as fair or medium. At some interviews she felt it had improved during the preceding six months and at other times it had deteriorated. She suffered from cystitis, for which she saw her doctor from time to time. She also said at the first interview that she experienced 'giddy turns', and these appeared to get worse as the study progressed. In subsequent interviews, for example, Mrs. Perkins reported feeling light-headed and needing to stop from time to time when walking, having sudden blackouts, and falling over in her flat. In one interview she said that she had difficulty getting around out of doors because she had lost confidence as a result of the giddy turns and blackouts. She attributed these events to a hardening of the arteries, although she did say that her doctor had refused to suggest a cause to her.

Because of the lack of close family support, Mrs. Perkins felt insecure about living alone. She got on very well with her neighbours, and saw them almost every day, but as she pointed out, most of them were at least as old as herself and unable to offer much help. Two of the 'younger' residents in the block of flats were out at work all day. Mrs. Perkins mentioned some friends who visited her, but she said she wouldn't ask their help for anything. She seemed to rely quite heavily for social contact upon her sister, and it was a 'great shock' to Mrs. Perkins when she died shortly before the fifth interview. Mrs. Perkins said: 'She was my only relative in England; I had blackouts at that time and felt awful for a fortnight after that. It's left a gap.' At the final interview, she said that she was shortly expecting another sister from Canada to discuss whether she would return there.

Throughout the course of the study, Mrs. Perkins was worried at the thought of falling over and being unable to contact anyone. She said at one interview that, without a warden, she felt isolated in her flat, and at another interview that there should be a system of signalling whereby people in need of help could place a card in the window. A telephone was installed

half-way through the study, but Mrs. Perkins was bitter that, although it had been done on the recommendation of her doctor, she had had to pay the full cost herself. Like so many people in the study, the rising cost of living was a major worry to Mrs. Perkins. However, the introduction of the telephone seemed to ease her concern a little. Before it had been installed, she said in reply to a question about how she would manage if she had to stay in bed for a week, 'I keep a good cupboard full for an emergency. I'd crawl out to go to the cupboard. I don't know anybody. If I had a stroke I could lay here until they found me. I could die here and no-one would know.' After the installation of the 'phone, her replies to a similar question were rather less desperate, although at the final interview she did say that, 'I don't know how I would manage. I don't think about it.'

Mrs. Perkins illustrates the marginal position of many of the people in the study who were living alone. She was an independent woman who, in many ways, could look after herself perfectly adequately and who would certainly have resented institutional life. Her flat was very convenient, both in its location and its layout, and the interviewer noted that it was kept in a spotless condition. Moreover, Mrs. Perkins' health was such that, throughout the duration of the study, she needed no form of care that could not be provided by herself, her sister (until she died) or her neighbours. Nevertheless, Mrs. Perkins seemed to be living near the margin of her capacity. She had no major source of family or neighbourhood help to which she could turn, and she felt insecure in her isolation. At many points throughout the study she voiced her fear of blacking-out and being unable to summon assistance, and she also reiterated her desire for a quick way of communicating with the world beyond her flat. Although, so far, Mrs. Perkins had avoided any substantial dependency upon the statutory services, her resources for coping with a prolonged or incapacitating illness seemed meagre.

If Mrs. Perkins was living near the margin of her capacity, Mr. Porter was living beyond his. His was perhaps the most extreme example of the relatively small number of people in the study who were living on their own in circumstances of great difficulty. A retired agricultural worker, Mr. Porter was 72 at the outset of the study. He was single and living by himself in

the small terraced council house he had occupied for 15 years. The house was described by the interviewer as really poor - ramshackle, rather dirty and untidy. It was very cold in the winter and hot and stuffy in the summer. The front room was taken up almost entirely by a broken sofa bed which Mr. Porter had been unable to mend or replace. He said at the first interview that he hoped for a premium bond win to buy another, but his luck was out for the three years of the study. Mr. Porter was always cheerful and uncomplaining, and frequently said that many others were worse off than he; but he was a very lonely man with few social contacts. Whilst he valued the freedom of having his own home, he often spoke longingly of the company and care provided by a residential home. At the fourth interview, for example, he spoke of feelings of depression when on his own, and said that he didn't think he would be depressed in a hospital or a home. As his health deteriorated throughout the duration of the study, Mr. Porter's need increased for the personal care that an institution might have offered.

Mr. Porter had four relatives with whom he was in contact. A single sister, aged 69, lived opposite him, but she was both lame and backward (conditions attributed to a childhood accident), and was totally dependent upon Mr. Porter for all her needs. He said: 'I do everything for her. Get her pension. Get her meat. Pay her rent. Everything!' The only change in this arrangement occurred at the very end of the study, when Mr. Porter was totally housebound, and he relied on daily visits from her as his main contact with the world outside. Mr. Porter also had a brother of 63 living a mile or two away. Mr. Porter said at the first interview that they used to meet regularly, but that the brother had recently had a heart attack, and contact had been lost. However, as Mr. Porter's health declined, his brother renewed the contact, and by the end of the study Mr. Porter was dependent upon him for his weekly shopping. The other two relatives were rarely seen, and were not mentioned at all for any help they gave. Mr. Porter knew his neighbours 'pretty well', and got on well with all of them. He said early in the study that he could call on them for help if he needed it. 'Those on the left say if anything happens in the night give us a tap on the wall. Across the road there she has daughters, and when I had bronchitis they did the house from top to bottom.' In fact, Mr. Porter's expectations about his neighbours were well-founded, for they gave more and more help as his capacity for self-care diminished, and by the end of the study they were helping regularly with various household tasks.

Mr. Porter described his health throughout the study as fair or poor.

He suffered from bronchitis, and during the winter months was very wheezy and short of breath. He said: 'Every time I lay in bed I scare myself whenever I wheeze.' He was afraid of being taken ill when on his own and being unable to call help. A telephone would, he said, be a great comfort. 'If you took bad in the night, wouldn't it be wonderful to have a 'phone ... It would be like a friend ... Ring up someone when you're on your own.' Mr. Porter was also lame - the result, he believed, of childhood rickets. In the early part of the study Mr. Porter said that, although he found it difficult getting about out of doors he managed to do his own and his sister's shopping on his bicycle. He was aware of the risks involved, but said that in spite of the occasional fall he was usually alright once on the machine. As the study progressed, however, mobility became increasingly difficult. By the fourth interview, for example, Mr. Porter said his health had 'never been worse' and his legs were getting weaker. He now found it harder to cycle to the shops and to the doctor, and said that he had fallen off the bicycle several times. He was unable to walk even to the bottom of the street. At the next interview, six months later, Mr. Porter said that his legs were very swollen, and that he could no longer manage the bicycle. He could walk only with great difficulty, and he had problems in getting to the bathroom and lavatory, dressing, and doing the basic household tasks.

By the final interview, Mr. Porter, now 75, was totally housebound. He had a stroke shortly after the fifth interview and had spent three months in hospital. He was very debilitated, and had almost entirely lost the use of his legs. He had no outdoor mobility at all, but was able to move about inside the house by rolling and dragging himself along. The loss of mobility was his greatest burden, and he said that he would have liked help with this. 'If I had a push-chair this might help ... I could jump over the moon if I could land on my hands instead of my feet.' By this time, Mr. Porter was receiving aid from the home-help service and meals-on-wheels, and as noted above, his brother was doing the shopping and one or two of his neighbours were helping regularly with household chores. He was being visited regularly by his doctor, and he said that he was taking medicines every day to prevent the swelling in his legs and to help his bed-sores.

As Mr. Porter's needs increased, so also did the help that was forthcoming from various sources. In the early stages of the study, when Mr. Porter was coping quite well with both his own and his sister's needs, he felt that, apart from his neighbours, he would have little help at his

command at times of need. When asked at the first interview how he might cope if confined to bed through illness, he merely said: 'Oh, I wouldn't think about it', and then broke down in tears. At the second interview, when asked the same question, he replied: 'No, don't ask me that. A thing I dread.' Later in the study he reported receiving sporadic visits from welfare agencies. At the third interview, for example, he said that he had received some fuel from Age Concern. 'They came twice. The second time with a young fellow who would come and visit me now and again. He came twice, hasn't been since; not for six weeks.' And at the fourth interview Mr. Porter said: 'Someone brought me a couple of pillow cases. Another young fellow who used to work at the mental hospital as a nurse used to come.' Following his admission to hospital, however, more systematic help was needed, but was not (according to his account) always forthcoming. 'When I was in the hospital they said they'd send the District Nurse but she hasn't come. There's nothing she could do really. I have no sores like I had when I went into hospital.' However, Mr. Porter was fixed up with a home-help and meals-on-wheels, and as noted above, at the conclusion of the study he was being supported by his brother, some of his neighbours, and (if only in a social sense) by his sister.

The core of the problems which beset Mr. Porter during the course of the study seemed to stem from the combination of his physical disability and his household structure. Unlike Mrs. Clarke and Mrs. Perkins, Mr. Porter suffered from physical impairment that progressed from being mildly disabling at the beginning of the study to causing almost total immobility at the end. For almost two years from the time of the first interview, Mr. Porter continued to look after himself and his sister - not in style, certainly, but sufficiently well to maintain his independence from all statutory and most voluntary services. Living alone was a source of much anxiety and loneliness, but Mr. Porter's cheerfulness and optimism seemed to help him to cope with disadvantages that might have overwhelmed others. However, his fragile independence, which became increasingly precarious as his capacity for movement narrowed, was quite unable to cope with the catastrophe of a stroke, and he was admitted to hospital for a period of time considerably in excess of the mean for all men of his age with that diagnosis. On leaving hospital, he was able to return home only with the co-ordinated support of various people, including his doctor, a home-help, meals-on-wheels, various neighbours and his brother and sister. According to the account which Mr. Porter gave of his position at the close of the study, some of the elements in this support system were precarious. His brother and sister both suffered from ill health, and it was not clear for how long they could

continue to visit him. He seemed to be blessed with actively helpful neighbours, but they were always at risk of moving and being replaced with less generous people. It may not be possible for Mr. Porter to stay in his home if his informal sources of help dry up. As long as he remains a single-person household, Mr. Porter may be increasingly at risk of being admitted for hospital care in circumstances that could be managed at home if another capable member of the household were present.

The second circumstance to be illustrated through the case studies in this section is that of a change in household structure. The impact of such change will be influenced heavily by the circumstances in which it occurs. The death of a husband or wife, for example, may give rise to much more profound problems than the departure of a lodger, or even a son or daughter; and changes which leave an elderly person on his or her own may be more serious than those which do not. However, some changes which might be expected to produce unfavourable consequences may, with goodwill and co-operation, be contained within the existing support networks. An example of this is the case of Miss Pope. A spinster aged 82 at the outset of the study, Miss Pope was living with her 78-year old sister (also a spinster) in a small, comfortable terraced house near the middle of the town, close to shops and to the church to which they belonged. Miss Pope had worked in a retail drapery store on the South Coast before her retirement, and at the time of the first interview she and her sister had been in their present house for two years. They had no relatives with whom they were in regular touch, but Miss Pope's godson, a married man in his fifties living some 20 miles away, called in from time to time to check that all was well and occasionally to tidy up the garden. Miss Pope regarded him as 'our final support'. Miss Pope said at the first interview that, considering the short time they had been living there, they knew quite a lot of people, particularly through the church. But apart from Mrs. R, their next door neighbour, she didn't think she could count on their help at all. 'We don't know them well enough for that.' Mrs. R was 70 at that time, and 'not too well herself'. Miss Pope felt that she would have to rely on her sister if she had to stay in bed. 'If my sister was here, she'd look after me. She used to belong to the Red Cross years ago.' The sister agreed with this view. During the first year of the study, however, Miss Pope considered herself

to be in excellent health for her age. She had some rheumatism in her knees, which meant that she could have a bath only with the help of her sister, and she also suffered from high blood pressure. She was seeing her doctor regularly twice a year for a check on her blood pressure, and was taking tablets for it.

Miss Pope's sister died suddenly from a stroke shortly before the third interview and for the remaining duration of the study Miss Pope (now aged 83) lived by herself. She said she was shocked, grieved and upset at the death of her sister. But her original assessment of the neighbours' propensity to help was mistaken, for they had been very kind and supportive to her in many ways, and she said at each of the subsequent interviews that she was extremely grateful to the neighbourhood. Two neighbours were mentioned as having been especially helpful, neither of whom had been referred to in earlier interviews. They had taken Miss Pope to the doctor on one occasion when she had had an attack of acute muscular pain, and they helped regularly with various household chores, especially those requiring lifting, bending and stretching. At the fourth interview Miss Pope said: 'I am being looked after so well. I thank God. If anything happens, either of the two ladies would let my godson know and he'd come and do what's necessary.' And at the sixth interview she remarked: 'I felt the loss of my sister for a time, but it's made up to me by neighbours and the church round the corner. They're very nice.' When asked at this interview how she thought she would manage if illness confined her to bed for a week, Miss Pope replied: 'Mrs. D and Mrs. W would come in. It all depends what's wrong. They could shop and bring refreshment. I am sure I could rely on them.'

Unlike Mr. Porter, who had to cope not only with living alone but also with progressive physical disability, Miss Pope was blessed with relatively good health during the two years following the death of her sister. She saw her doctor regularly twice each year for blood pressure, and was taking regular medication for it. She had some trouble with her knees and feet and was receiving care from a chiropodist. As time went by, she found it an increasing strain to keep the house clean, but, as she said, 'I'm thankful I'm well enough to do it at all.' Apart from these few health problems Miss Pope enjoyed what she described as excellent health for her age, and this seems to have been an important factor in enabling her to adjust to single living following her sister's death. The only major effect which the loss of her sister seemed to have caused Miss Pope was in the matter of bathing. While the sister was still alive, Miss Pope relied on her help in having a bath, but after her death she had had to give up bathing completely.

Understandably, this was a matter of some concern to Miss Pope, and she mentioned it in each of the subsequent interviews.

Miss Pope seems, on the basis of her own accounts, to have been more secure than either Mr. Porter or Mrs. Perkins, even though many elements of her situation during the three years of the study might have suggested otherwise. She was somewhat older than the other two, and suffered a major social and personal loss when her sister (upon whom she said originally she would have to rely totally for care if confined to bed through illness) died suddenly. She had no other relatives at all, and before her sister's death she did not expect any help to be forthcoming from her neighbours. Her position seemed precarious. Nevertheless, she quickly minimised the effects of her sister's death, and for the remaining two years of the study Miss Pope lived happily on her own. Two factors seem to have contributed to this. First, unlike Mr. Porter, Miss Pope did not have to cope with any major illness or disability. It is impossible to say what would have happened to her if, like him, she had become progressively immobile and eventually housebound. Second, unlike Mrs. Perkins, Miss Pope's neighbours proved to be a major source of help when needed. Whereas both Mr. Porter and Mrs. Perkins repeatedly mentioned their sense of isolation and loneliness, Miss Pope felt integrated into, and supported by, her neighbourhood and her church. Again, it is impossible to judge the adequacy of this support network if Miss Pope's needs increased or intensified, but with her health and functional ability in a steady state, it was sufficient to create in her a sense of security, well-being and integration.

Lastly in this section, the stories of some respondents illustrate the difficulties that elderly people may face if they are responsible for the care of a dependent member of their household. Mr. and Mrs. Trigg were in this position. At the outset of the study Mr. Trigg was 83, his wife a year younger. They had been married for 60 years and had occupied their bungalow since Mr. Trigg's retirement as a local government officer. The bungalow was comfortable and warm, but some distance from the centre of the town, and the Triggs had to rely on the bus to do their shopping. They found the schedule poor and the fares 'prohibitive'. 'There's no bus to A and one every two hours to B. We have been told that if you are on a bus route you can't have an ambulance for visiting the day hospital, yet a taxi is so expensive'. In fact Mr. Trigg had decided that it had not been

very satisfactory for them to move when he retired, especially as they were so far from the shops. He said: 'You move, then you are left on your own.'

Mr. and Mrs. Trigg had one son, a married man of 48, living in Hampshire. He was a caretaker in a large comprehensive school, and was not able to visit often. They saw him only once or twice a year, although they kept in regular telephone communication. Their only other relative was a married grand-daughter living with her family in Cheshire. Mr. and Mrs. Trigg described their neighbours as 'very good'. They got on very well with all of them, and felt that they could ask at least two of them for help in an emergency; but as Mrs. Trigg commented, 'there is no familiarity. I don't think you could rely on them. Most of them are elderly with their own problems.' Throughout the duration of the study no mention was made of any help given to the Triggs by their neighbours. They were, effectively, unsupported by either relatives or neighbours, and they had no friends.

Throughout the study Mrs. Trigg's health was poor. At the first interview she said that she was unsteady on her feet, and could no longer go out without her husband's support. Mr. Trigg said she was nervous and that her memory was poor, and in subsequent interviews it appeared that her mental state was deteriorating. She was shaky and fidgety during the interviews and spoke increasingly of her forgetfulness and depression. She said at the fourth interview: 'I don't care what happens to me. You don't when you worry ... This depressive business ... When you get to this age you don't care what happens.' Her husband expressed considerable disquiet as the study progressed about Mrs. Trigg's mental state. He talked about her impetuousness and even some suicidal tendencies. 'She says, "I may go under a bus, or cut my throat or gas myself".' Mrs. Trigg's physical health also declined during the three years of the study. At each interview she said that it had become worse during the preceding six months, and that she had more difficulty coping with the household tasks. Between the fourth and fifth interviews Mrs. Trigg fell over in the kitchen and fractured a vertebra. She was admitted to hospital for five and a half weeks, and on returning home she acquired a Zimmer frame. She said at the fifth interview that without the frame she could not walk at all, but with it she was able to shuffle along. Between the fifth and sixth interviews Mrs. Trigg had a blackout and fell over again. On this occasion she fractured her arm. At the final interview she said again that her health was worse: she could not get out of the house at all, and had difficulty even moving about indoors. She required the help of a district nurse to bath herself, and she relied on

her husband for help in dressing, feeding and brushing her hair. She had again had a spell of one week in hospital for an acute attack of breathlessness. She was being visited regularly by her doctor, and was taking regular medication for her heart and to aid sleeping. She said at the end of the final interview: 'I feel hopeless and helpless. I rely on him (husband) for everything.'

Mr. Trigg, upon whom a substantial burden of care fell, was far from fit himself. He had had two heart attacks about six years before the study began, when he was aged 77, and this, combined with a general decline in strength through ageing, made it increasingly difficult for him to look after his wife properly. Between the third and fourth interviews Mr. Trigg collapsed (the reason is not known) and was admitted to hospital for a few days. When he returned home the Triggs' son and his wife came to help, but this had not been a success because of Mrs. Trigg's dislike of any outside help with the housework. She was almost obsessively houseproud, and was agitated when others tried to do the housework for her. She persistently refused a home help, explaining that her husband could do everything himself; but a home help had visited for a short period following Mrs. Trigg's second spell in hospital.

After his collapse, Mr. Trigg became increasingly concerned about his capacity to cope. He was particularly worried that, in the event of Mrs. Trigg falling again, he would not be able to lift her. At the sixth interview he said that he thought his own health was worse; he mentioned being breathless as a result of his heart condition, and the restriction this placed on his ability to walk very far. At the close of the study he was able to struggle on with the support of regular visits from their GP and a district nurse, but, with almost no support from relatives, neighbours or friends, his capacity to cope was stretched to the limit.

The Triggs' case, whilst being unique in the sense that each case in the study had distinctive features, was by no means unusual. About 15 married respondents (almost a quarter of all married respondents at the outset of the study) indicated that their husbands or wives were in such poor health as to be more of a burden than a help. In the Triggs' case, several factors may be identified that seem to have exacerbated the difficult situation in which they were living by the end of the study. One factor was their age: when the study ended both Mr. and Mrs. Trigg were over the age of 84 and Mr. Trigg might have found it sufficiently demanding just to look after himself without having to care for his wife as well.

A second factor was the geographical isolation of their bungalow and the almost total absence of family and neighbourhood support. In this respect the Triggs were more disadvantaged than either Mrs. Perkins (whose flat was conveniently situated for shops and other services) or Miss Pope (who was well supported by her neighbours). Third, both Mr. and Mrs. Trigg were in relatively poor health. There were several cases in the study in which an elderly, frail person was being cared for by a fitter spouse, but the Triggs were particularly disadvantaged in that they both suffered from incapacities that worsened during the course of the study. Although Mr. Trigg was undoubtedly the major support in enabling his wife to cope with life at home, he was in certain respects a fragile support, and this may have contributed in part to Mrs. Trigg's extensive use during the course of the study of hospital, GP and community nursing services. Finally, there are hints that attitudes may have been a significant factor. On the one hand, Mr. Trigg seems to have faced up stoically to a combination of circumstances that might have swamped another person with different attitudes towards responsibility and fortitude. On the other hand, Mrs. Trigg's firm refusal of all offers of social help (which may have been connected in some way with her general mental condition) could have been a factor in the low level of neighbourhood support which the couple experienced. Attitudes are tricky things to quantify, but in this case (more than in some others) they seem to have been a component part of the story.

CONTACTS AND COMMUNICATIONS

The case studies presented so far in this report have emphasised the importance not only of the household structures but also the communication networks of elderly people in determining how they fare at times of illness and crisis. The range of people with whom contact is made, and the help that is given by them, may be of considerable importance to the quality of the lives of elderly people, to their sense of security, and to their degree of dependence upon social and health services. This section summarises the information collected in the study about the communication networks of the respondents, and the following section looks at the informal sources of help available to them.

Both Hunt (1978) and Morgan (1979) gathered information about marital variations in the communication networks of elderly people. The results from Hunt's national study showed that, in their contacts with relatives, widowed and married respondents were somewhat better off than either the single or the divorced/separated respondents. Proportionately more of them reported having close relatives (96% of the married and 95% of the widowed, compared with 88% of the single and 78% of the divorced/separated), and proportionately more of them said that their relatives visited them several times a week (33% of the married and 37% of the widowed, compared with 14% of the single and 17% of the divorced/separated). Conversely, rather more of the single, divorced and separated respondents said that they would like their relatives to visit them more often. When asked which particular relatives visited them most frequently, the relative mentioned most often by married and widowed respondents was a daughter or daughter-in-law (57% and 50% respectively). Daughters (in-law) were also the most frequent visitors to divorced and separated respondents, but only 35% of these respondents mentioned them. Among single respondents, sisters or sisters-in-law were the most frequent visitors mentioned by 32% of these respondents.

In contrast to their contacts with relatives, the married and widowed people in Hunt's survey appeared to have slightly fewer contacts with friends and neighbours than did the single, divorced or separated people. For example, the proportion of respondents who received visits from friends increased from 69% among the widowed and 72% among the married to 76% among the single and 79% among the divorced/separated. However, the somewhat lower rate of contact with friends and neighbours reported by the married and widowed respondents seemed to be more than balanced by their greater

contact with relatives. For example, the proportion of people who visited neither relatives nor friends was only 10% among the married and the widowed, rising to 17% among the single and 24% among the divorced and separated.

Morgan did not collect exactly the same information as Hunt about the contact which her subjects had with relatives and neighbours, but broad comparisons can be made. Like Hunt, Morgan found that the widowed respondents in her follow-up study of hospital dischargees were in closer regular contact with relatives than were single, divorced or separated respondents; but the married people in Morgan's study were not as favourably placed. Thus, exactly two-thirds of widowed respondents reported that the nearest relative with whom they were in regular contact (including sons and daughters) was living either in the same household as themselves or within about five miles, but this proportion fell to just under half among the married, two-fifths among the single people and only one-fifth among the divorced and separated. Conversely, whereas 39% of the single and 33% of the divorced and separated said that they had no relatives with whom they were in regular contact, this proportion fell to only 7% among the widowed and 5% among the married. Again, like Hunt, Morgan found that single people were more likely than the widowed to report frequent contact with their neighbours (74% compared with 62%, excluding those living in warden-assisted accommodation), but Morgan did not combine the data on contacts with relatives and neighbours in a way that would show the extent to which one compensated for the other.

Contacts with children

Information was collected in the present study about the number of children whom the married and widowed respondents had. At the time of the first interview, 64 respondents were married and 46 were widowed. The number of surviving children reported by those in each category is shown in Table 5. A higher proportion of married than of widowed respondents had surviving children, and the married also had a greater number of children. For example, the mean number of surviving children was 1.89 for the married respondents and 1.63 for the widowed. However, much of the difference between the two groups was explained by the proportions having only one or two children, for similar proportions of married and widowed respondents had three or more children. The effect is that rather more widowed than married people had to rely for help (when needed) upon one child only.

There are several possible reasons for these differences. For two widows, for example, the death of their husbands during child-bearing years

may have frustrated the achievement of a desired family size. The different age structures of the married and widowed respondents may also have been important. The mean age of the widowed people at the outset of the study was about six years higher than that of the married people, thereby exposing their children to a greater risk of dying (albeit prematurely). Evidence supporting this interpretation is found in the fact that, even among the married respondents, the reported mean number of surviving children diminished with the increasing age of the respondents. Among married people aged 70 and over, for example, the mean number of surviving children was 1.68, almost identical to the mean number among the widowed respondents.

From the point of view of the help and support that sons and daughters might give to their elderly parents, the sheer number of children may be less important than their location and their frequency of contact with their parents. Respondents were asked in the first interview where each of their children was living, and how frequently each was seen. The replies to the question about the location of children are summarised in Table 6. The table is arranged in such a manner that, the higher up the table respondents are located, the nearer they were living to their closest child. The widowed respondents were rather more heavily concentrated in the upper part of the table than the married respondents, indicating that although they did not have quite as many children in total as the married respondents, they were a little more likely to have at least one child living in fairly close proximity. One in five of the widowed people was living in the same household as a son or daughter at the outset of the study, compared with only one in ten of the married people; and whereas 42% of the widowed had at least one child living in the same town as themselves, the proportion was only 31% among the married respondents.

Although the widowed respondents were rather more likely than married respondents to be living in the same vicinity as their children, the tendency for elderly widowed people to move nearer to their children (or vice versa) seems to be a long-term process rather than an immediate response to widowhood. It was noted above (page 24) that none of the seven respondents who became widowed during the course of the study changed their residence or household structure in any other way during the remainder of the study, and it was also noted that people who had been widowed for a shorter period of time were more likely to be living on their own than those who had been widowed for more than five years. A breakdown of the figures in Table 6 according to the length of widowhood confirms that, in broad terms, the longer people had been widowed the more likely they were to have been living in the same household, and the same town, as their nearest child.

The replies to the question about the frequency of contact between the respondents and their children are summarised in Table 7. There is an obvious link between the residential location of the children and the frequency with which they were seen: the closer the nearest child lived, the more frequently at least one child was seen. But the link appeared to be rather more marked among the widowed than the married respondents. One in three of the widowed people at the outset of the study reported daily contact with a son or daughter (including, of course, those who were actually living in the same household as their parents) and a further one-in-five saw a son or daughter at least once a week. Relatively fewer of the married respondents, by contrast, were in daily contact with a son or daughter, and relatively more of them saw their children no more frequently than at monthly intervals.

The data in Tables 5-7 indicate that although the married respondents had rather more children than the widowed, the latter had closer spatial and temporal links with their children. Proportionately more of them were living within easy access of their children, and hence they were more likely to be seeing them on a day-to-day basis. The suggestion in these data that the differences may have reflected a deliberate move by widowed parents or their children (or both) to increase the amount of support available to them is further supported by the high proportion of daughters among the children seen most frequently by the widowed respondents. Of the 38 widowed people with children at the outset of the study, 27 (71%) reported that it was a daughter whom they saw most frequently, 9 (24%) that it was a son, and 2 (5%) that it was a son and daughter equally. By contrast, of the 56 married respondents with children, only 26 (46%) saw a daughter most frequently, 24 (43%) a son, and 6 (11%) a son and daughter equally.

Contacts with other relatives

Respondents were asked at the first interview whether they had any relatives whom they saw regularly, apart from their children and those relatives with whom they were living. For each relative mentioned, further questions were asked about their place of residence and the frequency with which they were seen. In the sixth interview, which was the first following the publication of Hunt's (1978) report, three questions from that survey were asked about the existence of close relatives (including children), the frequency with which they visited, and the ones who visited them most often (questions 42, 42a and 42b in Hunt's questionnaire).

The replies to the questions in the first interview showed that, at the outset of the study, a majority of respondents had relatives (other than their children and household members) whom they saw regularly. The proportions replying in this way were 81% of the married people, 81% of the divorced and single, and 74% of the widowed. Though not directly comparable with Hunt's survey, these figures are fairly close to the proportions of respondents in that survey who reported having close relatives. Of those who did see their relatives regularly, the majority said that their nearest relative was living in Kent, and a substantial minority said that the closest relative was living in the same town as themselves.

The replies to the questions in the sixth interview cannot be compared directly with those from Hunt's survey (even though the questions were identical), for the respondents who had remained in the study throughout its duration were no longer a representative group of all elderly people in the community. Nevertheless, the replies were broadly similar to those reported by Hunt. As in her survey, for example, a higher proportion of married and widowed than of single and divorced respondents reported having close relatives (100% of the married and 89% of the widowed, compared with only 70% of the divorced and single), and whilst daughters were the most frequent visitors to married and widowed respondents (mentioned by 40% and 43% respectively), the most frequent visits by relatives to single and divorced respondents were made by sisters. Where the results of this study differed from those of Hunt was in the proportion of people reporting that at least one relative visited them several times a week. Hunt found that twice as many married as single or divorced people reported visits of this frequency, but in the present study the reverse was true: 30% of single or divorced respondents and 35% of widowed respondents said in the sixth interview that relatives visited them several times a week, compared with only 16% of married respondents.

The data from the first interview about the residential locations of children and other relatives are combined in Table 8 to show, in a rough and ready way, the geographical proximity of respondents to their families. The four cells in the top left of the table ('A' cells) contain those respondents with at least one child and at least one other relative living in Kent. For many of them, the child or relative was actually living in the same town or village as themselves. The blocks of four cells in the top right and bottom left of the table ('B' cells) contain respondents who had at least one relative (B1) or at least one child (B2) in the county. The remaining four cells in the bottom right of the table ('C' cells) contain those

people at the outset of the study with neither children nor other relatives living in Kent, either because they had no such relatives at all, or because they lived outside the county.

Clearly, this is only a crude method of depicting the respondents' geographical proximity to their families, but it does reveal variations between marital status groups that are not evident from separate analyses of contacts with children and with other relatives. Respondents in the 'A' cells (that is, those with close residential links with both children and other relatives) accounted for exactly half of the widowed respondents and only one single/divorced person. There were no major differences between marital groups in the proportion of people in the 'C' cells (those with weaker residential links), but a particularly high proportion of single/divorced people (three-quarters) were in the B1 cells (those with weak links with children but close links with other relatives).

Contacts with neighbours and friends

Respondents were asked at the first interview how well they knew their neighbours and whether they would expect their neighbours to help them in any way if they were ill. At the sixth interview eight questions were replicated from Hunt's survey about visits from and to friends, the help given to and received from them, the degree of acquaintance with neighbours, and the help that could be expected from neighbours at times of urgency (questions 43, 44a, 45c, 45d, 45e, 46, 47 and 47a in Hunt's questionnaire).

The replies to these questions generally supported Hunt's and Morgan's conclusion that most elderly people have some contact with their friends and neighbours, and there was also support for Hunt's finding that friendship and neighbourhood contacts are somewhat better developed among single and divorced people than among the married and widowed. For example, the replies to the questions in the first interview showed that, whilst at least two-thirds of respondents in each marital group felt that they knew their neighbours well, the proportion was slightly higher among the single and divorced (77%) than among either the widowed (63%) or the married (67%). And although the replies given at the sixth interview were less representative of the elderly population as a whole (because of the people who had dropped out of the study for various reasons during its course), they remained consistent with those given to identical questions in Hunt's survey. For example, 74% of all respondents in the sixth interview said that they got on very well with all their neighbours (the proportion in Hunt's survey was 72%), and slightly more

single and divorced respondents replied in this way (80%) than did married or widowed people (73%). Likewise, 13% of all respondents said that they felt unable to ask any of their neighbours for help at times of urgency (the proportion in Hunt's survey was 10%), but none of the single or divorced respondents answered in this way, compared with 16% of the married and 14% of the widowed.

The main difference between Hunt's study and the present one centred on the contacts which people had with friends, rather than with neighbours. In all, 77% of the respondents at the sixth interview said that friends came to visit them (the proportion in Hunt's survey was 71%), but whereas Hunt found a slightly higher proportion among the single, divorced and separated than among the married and widowed, the reverse occurred in the present study: only half of the single and divorced reported visits from friends, compared with 73% of the married and 89% of the widowed. Likewise, whereas 35% of respondents in the present study said that they never visited friends (the proportion in Hunt's survey was 41%), more single and divorced people answered in this way (60%) than did married (37%) or widowed (25%) people.

Contacts and communications: some illustrative case studies

This section concludes with three case histories of respondents who, at the outset of the study, were in the 'A', 'B' and 'C' cells in Table 8. People in the 'A' cells were those in close residential proximity to their relatives: they had at least one child and at least one other relative living in the same county as themselves. In three of these four cells the nearest child and/or relative was actually living in the same town or village. In principle, therefore, these respondents were likely to have the closest and most effective family support. They represented half of all the married people at the outset of the study, one in three of all the widowed people, but only one of the single or divorced respondents. In addition to their proximity to their families, the majority of these respondents (28 out of 48) also felt they knew their neighbours sufficiently well to expect them to help out, if necessary, at times of illness or convalescence.

One respondent who fell within the 'A' cells at the beginning of the study was Mrs. Sandford. A widow of 76 at the time of the first interview, Mrs. Sandford was living by herself in a spacious ground-floor flat in reasonable distance of shops and other facilities. She had been widowed for 12 years; her husband had been a driving instructor before retiring. Mrs. Sandford had two daughters. The elder was married with two children

and living at the time of the first interview in Lancashire. Mrs. Sandford said there had been some religious difficulties over the marriage of this daughter, as a result of which they saw very little of each other. During the course of the study, however, the daughter and her family moved to within a few miles of Mrs. Sandford, and although communications increased between them, the relationship remained strained. The younger daughter, also married with two children of her own, was living some three miles from Mrs. Sandford at the time of the first interview and saw her mother several times a week. Indeed, Mrs. Sandford had moved to her present flat a year or two before the study began precisely in order to be closer to this daughter. In the early stages of the study Mrs. Sandford indicated her reliance upon the younger daughter for support and care. When asked at the first interview how she thought she would cope if illness confined her to bed for a week, she replied: 'My daughter would see to that, she wouldn't let me go without help. I have asked her to put me in a nursing home if I get to that state.' At the second interview she said that 'my daughter would come to see me'. Shortly after this second interview, however, the younger daughter moved some twenty miles further away from Mrs. Sandford where she and her husband took over a guest house; and Mrs. Sandford was aware of the difference this had made to her life. She spoke in subsequent interviews about the difficulty which her daughter had in getting away from the demands of the guest house, and at the final interview she said, in reply to the question of how she would cope if confined to bed for a week, 'I just don't know. It's the big problem. I don't know anyone. I suppose I'd just have to trust to my daughter.'

As well as her daughter, Mrs. Sandford had a married niece in her late-50s living in the same town as herself. She said at the first interview that they saw each other about once a month, but the niece was not mentioned at all in any of the subsequent interviews, even when Mrs. Sandford was in serious need of help.

Mrs. Sandford did not know her neighbours very well, and did not get on well with any of them. The flat above her own was occupied by a young couple whose presence she resented. They never spoke to her and they failed to look after the garden and entrance hall which, she claimed, was their responsibility. At one interview Mrs. Sandford described a recent incident in which a water pipe had burst in the couple's flat, causing one of her own ceilings to collapse; but at no stage during the drama had they offered any help or even spoken to her. Her neighbours on one side were described as 'very nice people', but on the other side, 'they make me sick - they're filthy'. Mrs. Sandford had one neighbour across the road whom she thought

might help if she needed it, but as Mrs. Sandford remarked, 'she seems so old herself'. Apart from her daughters and neighbours, Mrs. Sandford's only other contacts were through an over-60s club, to which she went three times a week. The club seems to have been an increasingly important element in her life, and it was friends from the club who gave her the most practical support when it was needed. One such occasion occurred during the second Christmas of the study. Mrs. Sandford said: 'I was bad and laid in my bedroom for three days. My friend came round from the 60 club and found me. I didn't phone because my friend's phone is in someone else's flat. I phoned my daughter (that is, the elder daughter, who by this time had moved from Lancashire to a neighbouring town) but that wasn't much help. She never came to me for over a month. But my friend came, and her husband, every day.' Shortly after that episode, these particular friends moved to New Zealand, and at the final interview Mrs. Sandford identified their departure as the biggest change in her life during the three years of the study.

In spite of the close proximity of relatives, Mrs. Sandford did not command much support, and repeatedly described herself as 'a lonely person' and 'not very sociable'. She spent an increasing amount of time by herself in her flat, describing on one occasion how she had stayed in the flat continuously for five weeks with bronchitis. Her shopping during this period had mostly been done by friends from the over-60s club, not by her daughters or neighbours. Mrs. Sandford's general state of health deteriorated throughout the course of the study. At no interview did she subjectively describe her health as better than 'fair', and at almost every interview she felt that it had been worse than six months previously. She suffered from bronchial trouble, which in the winter kept her at home for long periods of time and limited the amount of walking she could do, and she also reported frequent episodes of giddiness for which she was taking regular medication. Various acute episodes were mentioned at most of the interviews, including bladder infections, 'tummy pains', and back pains.

Among the difficulties with which Mrs. Sandford had to cope was that of increasingly restricted mobility. At the first interview she said that she tired quickly when walking and sometimes fell over, even when using a stick. Similar accounts of progressive restriction were offered in subsequent interviews. At the fifth interview, for example, she said that it had been more difficult than usual in the previous six months to get about out of doors: 'I'm slower in walking. My chest has pulled me down. My legs ache.' At the sixth interview she said: 'I get tired very quickly. I just go out shopping and feel so weary I wonder how I will get home ..... I don't go far.

I'm frightened getting on and off buses. I take a trolley or a stick because of the giddy turns.' Mrs. Sandford's difficulty in walking out of doors was compounded by what she regarded as the bad state of the pavements. She was angry at the neglect of the Council for the needs of the elderly. On two occasions Mrs. Sandford tripped and fell. The first fall resulted in bruised knees; the second was worse, for even though an X-ray revealed no broken bones, she was still experiencing pains in her knees three months after the event, and a finger that had been damaged in the fall remained stiff and inflexible. Mrs. Sandford was seeing her GP about two or three times each half-year, mainly in connection with her giddy spells and the sequelae of her falls, but she was hostile towards him. She said: 'I hate going there ... I haven't any faith in doctors. They've no interest in you. They sit and look at you, and don't do anything.'

Mrs. Sandford's case was fairly typical of many people in the study, although she seemed superficially to be better supported than some. One daughter was living nearby at the beginning of the study, and when she moved farther away, a second daughter moved almost as close. A middle-aged married niece lived in the same town as Mrs. Sandford. Nevertheless, these relatives provided only spasmodic support and care during the course of the study, even at times when Mrs. Sandford was, on her own account, in obvious need of care. Family relationships are defined in human and practical terms, and the orthodox assumption that two daughters, living within easy reach of their elderly widowed mother, would between them provide sufficient care to enable her to live in reasonable comfort, is not always a realistic assumption. Fractured personal relationships appeared in this case to account for the relative indifference of one daughter, and the practical demands of a 24-hour job for the limited assistance given by the other. In fact, Mrs. Sandford's most consistent help came from elderly friends, and the removal of one particularly supporting couple seemed at the close of the study to pose the major threat to Mrs. Sandford's capacity to continue living in her own flat.

Respondents in the two blocks of 'B' cells in Table 8 had some contact with their families, but lived further away from their children or relatives than those in the 'A' cells. An inspection of the criteria defining these cells reveals the diversity of circumstances they embrace, but these respondents had in common the fact that at least one child or at least one other relative was living in Kent. These eight cells contained two in five of all the

married people at the outset of the study, half of all the widowed people, and three-quarters of the single and divorced. Of the 59 respondents in this group, 34 felt at the outset of the study that they knew their neighbours sufficiently well to expect them to help out in some way, if necessary, at times of illness or convalescence. This proportion (58%) is identical to that among the preceding group of respondents.

One respondent falling into the 'B' cells at the beginning of the study was Mrs. England. At the beginning of the study Mrs. England was a 77-year old widow living alone in a ground-floor flat on a busy main road. She had been widowed for twelve years, and had been living in the flat for eight years. Before his retirement, her husband had been a factory manager. At the time of the first interview Mrs. England was working voluntarily with a library for the housebound, but failing health caused her to give it up. Mrs. England had two daughters. The elder was in her early fifties at the time of the first interview, widowed, and living in the West Midlands. Mrs. England said she usually saw her daughter two or three times a year, but at each interview she also said that the daughter was pressing her to move into an old people's home nearby. At first Mrs. England was reluctant to do this, claiming that old people are happier in their own homes, but towards the end of the study she had apparently accepted the wisdom of being nearer to her daughter, and spoke of the preparations she was making to sell her flat. The younger daughter, in her late forties, was married and living with her family in America. Mrs. England had visited her several times prior to the first interview, but not (for reasons which will become apparent) during the course of the study. She did, however, receive financial help from her daughter and son-in-law, particularly in paying for private hospital treatment and convalescent care.

As well as her daughters, Mrs. England had other relatives with whom she was in contact. A widowed sister, a few years younger than herself, was living in the same town; a married niece of 40 and a widowed sister-in-law of 65 lived in other parts of the county; and two brothers were living in Norfolk and Sussex. Of these relatives, it was her sister whom Mrs. England saw most frequently - several times a week throughout the duration of the study. When Mrs. England's health deteriorated during the early part of the study, she was very dependent upon her sister for much basic care; but as things improved later in the study, the sister became correspondingly less important as a source of help and support. The niece and the sister-in-law were not mentioned at all after the first interview, even though they were living within about 15 miles of Mrs. England.

Mrs. England said at the first interview that she knew all her neighbours, though not very well. Most of them were about the same age as herself. She said that the lady in the flat above, a lonely spinster, sometimes brought the milk in and switched the fires on, but she was thought to be a loner and not keen on much contact. Several neighbours in the block visited each other for company. Mrs. England was sure they would help if she was ill, but as she said, 'You don't like to ask too much, so you try to keep as well as you can.' When asked at the first interview how she thought she would manage if confined to bed for a week, Mrs. England replied: 'That is one thing that worries me. I could get a neighbour to do that. I don't know. If it came to it, my daughter would fetch me.'

Mrs. England's predictions were soon to be tested. At the first interview she said she was troubled by arthritis, particularly in her back and hip, and she was awaiting operations for the replacement of both hip joints. She had difficulty coping with certain self-care tasks, especially bathing (when she was afraid of slipping or falling over), putting on shoes and stockings, and doing up buttons and zips (for which she sometimes enlisted the help of the spinster in the flat above). At the second interview, six months later, Mrs. England felt that her health was worsening rapidly. She was very tired, unable to eat much, and waking for long periods at night. The arthritis in her hip was paining her considerably, and as she thought she would have to wait for perhaps a further two years for the replacement operation as an NHS patient, she was contemplating having the operation performed privately. Shortly after the second interview Mrs. England did have a right hip joint replacement as a private patient, and she felt much improved, with more mobility and less pain. She had been in hospital for ten days (far below the regional average stay for this operation), and on returning home her daughter had come down from the Midlands to help her. When the daughter returned home, Mrs. England said that, but for her good neighbours, she would have found it very difficult to cope, especially with housework and shopping. Just washing the dishes was tiring. She said she could have done with a home help. Her left hip was also beginning to trouble her.

Four months after the third interview, Mrs. England had the left hip joint replaced. She paid privately for the operation, and on leaving hospital she went to a private nursing home for three weeks' convalescence. Her neighbours and friends had been a substantial help to her on returning home, and the spinster from the flat above had been particularly supportive, doing the shopping, taking washing to the laundry and helping Mrs. England

with walking. At the fourth interview Mrs. England declared herself to be very satisfied with the results of the operation. She still had difficulty walking freely and bending down, and in doing jobs in the house that required strength in pushing and pulling; but she could take herself to the local shops and felt that she was improving all the time. 'I'm feeling better now than for a long time. I was worried about having the second hip done. I lost weight after the first operation. I'm much better now than I used to be. This arthritis, it came on quickly. Floored me. I was nearly a cripple last year.'

The final two interviews saw Mrs. England, now aged 80, consolidating her post-operative improvement. She said that the two operations had revolutionised her life. 'I wouldn't be here without them. Made all the difference in the world.' By the final interview she was walking briskly, sleeping well and eating much better than she had been. There were, however, some residual disabilities: she could not bend down properly, for example, to care for her feet; she tired quite quickly and could do household tasks in short bursts only; and she could not cope easily with slopes.
Mrs. England had some private domestic help, yet still felt herself to be relatively unsupported and vulnerable. In the final interview, for example, she said in response to the question of how she would cope if confined to bed for a week: 'I don't know. Someone would shop. I really don't know. You might get the odd one to bring something in. You really need someone in the house, but you can manage with a neighbour coming in. You have to be lucky to find someone to give sustained help.' Mrs. England said that her daughter in the Midlands was pressing her again to move nearer to her, and that she was trying to bring herself to sell her flat. The idea of moving worried her, but 'once you get there you don't worry any more. I've got to be philosophical and must accept things as they are. If something really bad happened I have the family, but I don't want to bother them.'

In many ways, Mrs. England's experiences are remarkable. An elderly widow, living on her own and with no children nearby, she coped with two major operations within the space of eight months, and at the end of the study was continuing to manage satisfactorily on her own. There seem to have been several elements enabling her to do this, although they were not related to her classification in Table 8 as being in medium contact with relatives. Although relatives were living within fairly close distance of Mrs. England, they did not appear to be of much help to her, with the possible exception of her sister, particularly in the early phase of the study before the hip replacements were carried out. On the other hand, Mrs. England's daughters provided important support in different ways, even

though each was living some distance away. The elder daughter in the Midlands displayed continuing concern about her mother; she came to look after her for a few weeks following the first operation, and at the end of the study was again trying to persuade Mrs. England to move to a home nearer to her. The younger daughter in America was clearly unable to give any personal care, but she and her husband seem to have played an important part in the story by providing the funds for Mrs. England to have her operations privately, and to have a convalescent period in a private nursing home following the second operation. The operations themselves undoubtedly produced a dramatic change in Mrs. England's life, but as she herself remarked, unless she had had them done privately, she might have waited for years for NHS treatment.

Yet in spite of the substantial help that she received from her daughters, Mrs. England (like Mrs. Sandford) still relied to a considerable degree upon her friends and neighbours to help her on a day-to-day basis. Like many respondents in the study, Mrs. England tended to underestimate the extent to which she could rely on her neighbours. Before the operation, for example, she had described the occupant of the flat above as a 'loner' and 'not keen on much company', but in fact this woman had been particularly supportive to Mrs. England when she returned home from the second operation, giving personal care as well as assistance with such tasks as shopping and laundering. Nevertheless, Mrs. England finished the study with a realistic appraisal of her own vulnerability, particularly with advancing age. She felt that her family was her only real source of care in the event of sustained dependence, and she was again thinking of moving nearer to her daughter in the Midlands.

Respondents in the 'C' cells in Table 8 were the most isolated geographically from their families: they had neither children nor relatives living in the same county as themselves, and some had no children or relatives at all. These cells contained one in eight of all the married respondents at the beginning of the study, one in five of all the widowed respondents, and one in five of the single or divorced respondents. Of the 19 people in this group, just over half (11) felt that they knew their neighbours sufficiently well to expect them to help out in some way, if necessary, at times of illness or convalescence. This proportion of respondents with neighbours perceived as helpful was the same as for those with close and medium contacts with their families, suggesting that in this part of the country the perception of

neighbourly help tends to be a fairly constant factor whatever other family resources may be available.

Mrs. Marks was one of the respondents in the 'C' cells. Her living arrangements and her experiences during the course of the study were similar in many respects to those of Mrs. England, although she lacked Mrs. England's family support. Mrs. Marks was 68 at the outset of the study, and living by herself. She had been widowed for ten years, having been married for 36 years. Her husband had been a textile representative before his retirement. Mrs. Mark's bungalow, where she had lived shortly before being widowed, was some way from the village shops, the chemist and the health centre where she was registered. She frequently complained about the cost and trouble of getting to the centre, particularly in the middle period of the study when her mobility was restricted. She thought there should be a local surgery with special opening times for older patients. Mrs. Marks also found her bungalow too large for her needs, and became increasingly worried as the study progressed by the responsibility of maintaining it. She said at the third interview that she was considering a smaller, rented flat where she would not have any worries about repairs and maintenance; but she had taken no action about moving by the completion of the study. One deterrent was the cost of renting; indeed, Mrs. Marks repeatedly spoke of rising prices and, like so many respondents, she identified inflation as one of her biggest single worries.

Mrs. Marks had no children. She mentioned two relatives with whom she was in contact, a married half-brother of 60 and a single nephew of 68, both living in London. She saw them each once or twice a year, and she also had a number of nephews and nieces whom she saw from time to time; but she did not identify any of them as possible sources of help. She mentioned particularly the difficulty she had had during her husband's terminal illness, soon after they moved to Kent, without any help from relatives. Mrs. Marks did not know her neighbours very well. At the first interview she said: 'They say hullo. We have the odd chat. Most around here are getting old. They do a bit of shopping, but you certainly couldn't expect them to do anything.' And at the final interview she indicated that her relationships with them had not changed. 'I don't see much of them. They have cars. We chat over the fence. I could call on any of them, but I'd rather call in a friend. People aren't very friendly round here.' Mrs. Marks said that she had some friends, and saw them regularly, but she was reserved about the amount of sustained help they might be willing to give. In reply

to the question about how she might cope if illness confined her to bed for a week, Mrs. Marks said at the first interview: 'I have a lot of friends, but they have their problems as well. They have their own families. They'd pop in and do little odd jobs. It depends how long it went on. I hope one could have a home help.' And in reply to the same question in the final interview she said: 'I'd have to have someone come in. The few friends I have, have got their own families. One or two friends would do a bit of shopping.'

Between the first and second interviews, Mrs. Marks fell whilst on a trip to London and broke her hip. She was taken to a nearby hospital where she had a ball-and-socket replacement fitted. She stayed for three weeks in that hospital, and was transferred to a local hospital for a further three weeks for convalescing and rehabilitation. Mrs. Marks felt she had done well to be out of hospital and walking about so quickly, but also that she had been hurried out of hospital. She would have preferred to have stayed for a further week. At the second interview, Mrs. Marks said that she felt less energetic than before the accident, and tired more easily. She was still unable to get into the village and was relying on a friend to do her shopping.

The third and subsequent interviews found Mrs. Marks continuing to recover from her operation and to regain a reasonable degree of mobility. By the third interview she was able to get to the village by bus, and by the last interview she was able to walk to the shops occasionally. Nevertheless, Mrs. Marks was firm in her opinion that her accident and operation had, as she put it, 'checked my health for all time'. At each interview after the operation she commented on the pain that still remained, and she complained of tiredness when working in the house or the garden. She had not been able to regain the full freedom of movement and bending that she had had before the accident, and she noted in the final interview that the onset of rheumatism in one knee was causing further restrictions to her.

Mrs. Marks was, clearly, relatively isolated and unsupported. She had no children, no close relatives, and less supportive neighbours than many of the respondents in the study. There were occasional reports in the interviews of help given by friends, particularly with shopping, but Mrs. Marks seemed always to be guarded and reserved in her judgements about the amount of help they might be willing to give. So far, Mrs. Marks had apparently managed to cope quite well from her own resources, even when faced with a major operation and an extensive recovery period. The future seemed, however, to be less certain by the end of the study. There were signs that Mrs. Marks might

experience increased difficulties in mobility which would be exacerbated by the location of her bungalow. The rising price of public transport and the increasing cost of house maintenance may increase the doubts she expressed throughout the study about the appropriateness of her accommodation. Domestic help, whether publicly or privately provided, may be increasingly difficult to obtain in a small village. These are matters of speculation, but as Mrs. Marks entered her eighth decade at the end of the study, she seemed to be representative of the large number of people in the study living fairly close to the margin of their resources.

PERCEPTIONS OF HELP AND SUPPORT

The case studies described so far in this report illustrate the fact that close proximity to, and regular contact with, friends, neighbours and relatives does not always correlate well with the help that elderly people actually receive, or think they might receive, at times of illness or disability. Some respondents in the study were living in situations of considerable loneliness and isolation, yet somehow managed to enlist the help of friends or relatives when they were ill or unable to cope with daily tasks; others, by contrast, though seemingly well surrounded with helpful people, were sometimes left bereft of help even in situations of moderate urgency. The results presented in the preceding section, together with those from Hunt's (1978) and Morgan's (1979) studies, indicated that elderly married and widowed people in the community appear to have more extensive contacts than single or divorced people: they tend to live closer to their relatives and to see them more often. Single and divorced people seem to have more contact with neighbours than do the married or widowed, but this does not compensate for their greater isolation from family networks. Moreover, it is possible that in qualitative as well as quantitative terms the married and widowed are better placed than the single and divorced, for whereas the main family contacts among the former are with their adult children (particularly daughters), among the latter the principal channels of contact and communication flow towards elderly siblings. How far, then, are these distinctive variations further reflected in people's perceptions about the availability of care and support at times of illness?

Anticipated help at times of bed disability

Two sets of questions were asked at various points in the study about the amount and adequacy of help from informal sources that respondents thought they would be able to summon, and had actually summoned, when ill. In the first, second, fourth and sixth interviews, respondents were asked: 'If you were ill, or coming home from hospital, and you had to stay in bed for a week, how do you think you would manage?' The replies were arranged according to the combinations of people who were mentioned as sources of help, and they are set out for the first interview only in Table 9. Several aspects of this table merit comment.

First, it is clear from simple inspection that respondents in the three marital categories differed considerably in the perceived sources of help which they identified, and these differences were related in obvious ways to their marital status. Married respondents thought, overwhelmingly, that they

would rely on their spouses: exactly half of them mentioned their husband or wife only, and a further third mentioned their spouse and one or more other people. The modal source of help for widowed people was a daughter or daughter-in-law: just over half of these respondents identified this source, either by itself or in combination with another person. Single and divorced respondents tended to be divided in their estimation of the most likely sources of help: a third mentioned relatives only (usually sisters), a quarter mentioned non-relatives only and a fifth mentioned a combination of relatives and non-relatives.

Second, almost all the respondents indicated that they would look for help to relatives and friends rather than to statutory, voluntary or private services. Indeed, only two respondents (one widowed and one single) said at the first interview that they would rely exclusively upon these services, although several noted that they would have to fall back upon such services if the anticipated support from relatives and friends failed to materialise, or ceased to be sufficient.

Third, fewer than one-in-ten of the married and widowed respondents was unable to think of any specific source to which they could turn for help if illness confined them to bed for a week. This proportion rose to one-in-five of the single and divorced respondents, which is consistent with other evidence about the greater social isolation of such people, but which is not significant in view of the very small numbers involved.

The responses set out in Table 9 appear to be fairly reliable. The data in this table are based upon the question posed in the first interview only, but the same question was also asked in the second, fourth and sixth interviews. Using the same classification as in Table 9, the replies show a fairly high degree of stability throughout the three years of the study, in spite of the loss of some respondents from one interview to the next. As the study progressed, married respondents tended to place less emphasis on the help forthcoming from spouses and more on the support of friends, neighbours and statutory or voluntary services. Widowed respondents became rather less likely to mention the support of friends and neighbours and rather more likely to refer to statutory or voluntary services. Single and divorced respondents were more likely as the study progressed to mention non-relatives and less likely to mention relatives as possible sources of help. Nevertheless, these changes were quite small, and they do not seriously distort the general impression that respondents in each marital group had fairly stable - but distinctive - ideas about how they would manage if illness confined them to bed for a week. The distinctions between the marital groups appear, however, to be characterised more by the

relationship between the prospective helper and the respondent than by the existence or number of such helpers. No large differences occurred between married, widowed or other respondents in the proportions who were unable to identify any likely help at all, or in the number of different helpers mentioned. The differences, rather, lay in the identities of the prospective helpers, and these seemed to reflect the respondents' marital status in obvious and direct ways.

Perceptions of unmet needs for help

A second set of questions about the respondents' perceptions of the help and support available to them focused on real rather than hypothetical events. At each interview respondents were asked whether there had been any times in the previous six months when help had been needed but not forthcoming; and whether there were any things for which they needed help now, but were not able to get it. The replies can conveniently be summed across the interviews in order to yield an overall picture for the study period as a whole, but allowance must then be made for the different number of interviews that respondents had. This is done in Tables 10 and 11, which show the distribution of respondents according to the proportion of interviews in which unmet needs for help were expressed. All respondents are included in these tables, however many interviews they had. The denominator in each case is the total number of interviews given by respondents, and the numerator is the number of interviews in which an unmet need for help was expressed. For example, Table 10 shows that, of the 64 married respondents at the beginning of the study, 53 expressed no unmet needs in any of their interviews, 5 expressed such needs in a quarter of their interviews, 5 mentioned such needs in between a quarter and a half of their interviews, and so on. The method distorts the results to some extent by giving an increasing weight to respondents remaining in the study for two or more interviews, and by ignoring the changes in marital status that occurred to nine respondents during the course of the study, but an inspection of the variations in response according to the number of completed interviews and the changes in marital status suggests that the distortion may be quite modest.

The results in Table 10 indicate that the question about respondents' unmet needs in the six months prior to each interview was weak, because the responses were not very discriminating. In each marital group about four-fifths of the respondents reported no such needs at any of the interviews. The widowed respondents appeared to be slightly worse off than the others

(almost one in ten of them reporting unmet needs in at least half of the interviews), but the numbers are too small to draw any firm conclusion. One reason for the weakness of this question may lie in the fact that perceptions of unmet needs are often transitory, and pass from the mind when the events giving rise to them have been resolved. This interpretation is supported by the replies to the question about respondents' unmet needs at the time of each interview, which revealed a wider spread of answers (Table 11). An identical proportion of married and single-divorced respondents reported no such needs at any of their interviews (56%), and the proportion was slightly higher among the widowed (67%). At the other end of the range, one in ten of both the married and widowed respondents said that they had such needs in at least three-quarters of their interviews, compared with one in five of the single and divorced. These differences between the marital groups, based as they are upon quite small numbers, do not appear to be of any great significance. They are consistent with the conclusion drawn from Table 9 that married, widowed and other people in the study did not differ very much in the volume of help that was expected to be available at times of bed disability.

The actual needs mentioned by those who reported them were varied. Of the 70 separate unmet needs reported by respondents at the time of each interview, exactly a quarter related to financial problems; 19% to needs connected with household tasks; 14% to gardening needs; 11% to needs for transport to shops, post offices and GPs' surgeries; 9% to unmet needs for medical or nursing care; 6% to the need for a telephone; and 4% each to needs for chiropody services, laundry assistance, home visitors and household aids. Some, though by no means all, of these subjectively felt needs might have affected the respondents' abilities to cope with illness or incapacity; but as the case studies have shown, it is difficult to predict what will actually happen at times of crisis on the basis of respondents' subjective feelings of what might happen. Nevertheless, the fact that, at some point during the study, one in four of all respondents reported financial difficulties, one in five reported unmet needs for household aids, and one in ten reported unmet needs for transport to essential services, suggests the existence of a reasonably sized pool of perceptual difficulties that might at least exacerbate other problems created by illness and dependency. In order to examine this, the section concludes with some illustrative case-studies of respondents who identified themselves as having a relatively low level of support and/or a relatively high level of perceived unmet needs.

Perceptions of help and support: some illustrative case studies

One such couple were Mr. and Mrs. Penfold. At the outset of the study Mr. Penfold was 73 and his wife was 76. They had been married for 45 years and had lived for the past five years in a large Victorian terraced house close to the centre of a small town. The house was warm and comfortable, and somewhat cluttered and dusty. Mr. Penfold had worked as a motor mechanic for thirty years before his retirement. The Penfolds had four children: a son, living in Canada, and three daughters, one in New Zealand, one in Essex and one some thirty miles away in another part of Kent. Contact with the children was sparse: the daughter in Essex was seen about once a year and the daughter in Kent visited about once a month; but Mr. Penfold said later in the study that she was quite ill and not able to do anything to help them. No other relatives were mentioned. The Penfolds felt themselves to be isolated from friends and neighbours. They had no friends whom they visited, or who visited them, and they did not get on very well with any of their neighbours. Mr. Penfold said at the first interview: 'They're neighbourly, that's all. Don't see much of them. They would help if we went into them and asked them for a 'phone call or something'. And he repeated at the final interview, 'they're not friendly, just neighbourly'.

Partly because of their isolation from relatives, friends and neighbours, the Penfolds felt that there was little help or support available to them. This is reflected in Mr. Penfold's answers to the question of how he would manage if he had to stay in bed for a week. At the first interview he said: 'There's no-one here to look after me. Can't expect my wife to do it. The neighbours don't come in and see. I'd have to call someone in from outside.' At the second and fourth interviews he simply said that he had no idea at all how he would manage; and at the final interview he said: 'I'd just have to lay there. She can't help.' He said there was no-one on whom they could rely, either for day-to-day help or when they were not feeling too good, and there was no-one who relied on them for help with day-to-day things.

Mr. Penfold's references to his wife's helplessness reflected her frailty. At the first interview he said that she was suffering from sciatica and could not go out on her own. As he put it, 'the least bit of wind blows her over.' He said she also tended to suffer from hypothermia in the winter. As the study progressed Mrs. Penfold's health seemed to worsen, and Mr. Penfold spoke of her loss of memory, her slowness in movement, her tendency to sleep for much of the day and, in the final interview, the almost total loss of her voice. It was not clear from Mr. Penfold's account of his wife's symptoms

whether these were isolated symptoms or part of an underlying disease process. His own health, too, was far from good. At the first interview he described his health as 'poor', and at no time during the three years of the study did he rate it as better than 'fair'. He regarded himself as handicapped by arthritis, making it difficult for him to move about. He could get 'as far as the paper shop, but that's all'. He reported difficulty with several self-care tasks, including getting out of bed, having a bath, getting dressed, doing up buttons and zips, putting on shoes, and shaving. He said in the final interview that he had difficulty in gripping things, and kept dropping them.

Because of the combination of their isolation and poor health, the Penfolds felt that they had many unmet needs for help. Mr. Penfold described himself at the end of the survey as 'deserted, poor and bitter against everyone'. Much of his feeling seemed to reflect the financial situation in which they found themselves. At the third interview Mr. Penfold said that they had asked for help with the electricity bill, but had been turned down. At the next interview he identified the increased cost of living as the biggest burden in their life. 'The pension's not going up to allow for the increase. I don't think we're getting enough. No, I don't think so.' Shortly after this interview, the Penfold's house had been flooded when a nearby river burst its banks during a storm, and Mr. Penfold spoke of this as a further calamity at the fifth interview. He said that he had been to 'the welfare, the social security and the council' for compensation for the food they had lost in the flood, and also for help with the electricity bill. 'Last quarter it was £88, and we had to get more fuel because of damp from the flooding.' He also said at this interview that he thought his wife should be classed as an invalid in order to qualify them for help. He said, 'I have to do everything in this house now, and you get tired out with all that work.' The Penfolds had apparently been unable to secure the services of a home help, and had appealed to a local councillor about it. Mr. Penfold was still worried about this at the final interview, although his thoughts seemed a little confused. He said that he didn't get any help because he didn't know where to ask for it, but he thought it was wrong that they had always been refused any help. He had also been trying to get an attendance allowance for his wife, and was currently appealing against the decision not to award it. He said: 'What's the good of asking? You don't get it. I wanted help with the heating bills but was turned down .... The authorities should do more.'

The Penfolds' story had many similarities with that of Mr. and Mrs. Trigg (see page 44). Though not quite as old as the Triggs, Mr. and Mrs. Penfold were nevertheless an elderly couple heavily reliant upon each other and with very little outside support from relatives, friends or neighbours. The absence of any reported help at all from friends and neighbours distinguished the Penfolds from many other respondents in the study, and there were other elements in their situation that were also unusual. They were, for example, among the few respondents who felt they were not receiving help to which they thought they were entitled. Whether or not they were actually entitled is of less importance than the fact that their belief in their entitlement had been neither corrected nor satisfied. One reason for this may have been the sparse contact they had with any representatives of the statutory services. Unlike the Triggs, for example, Mr. and Mrs. Penfold had very few consultations with their G.P. during the course of the study, and they had no contact with community nursing or social work services. They gave the impression of an embittered, grumbling couple, struggling along almost totally unaided against an uncaring and unsympathetic world. The fact that they were still maintaining the struggle by the end of the study was due in part to their avoidance of any major episodes of illness causing incapacity or dependency. Though neither Mr. nor Mrs. Penfold was in good health, their symptoms were predominantly those of chronic disease. They were progressively disabling, but did not appear to have caused an acute crisis. If such a crisis were to occur, the Penfolds' hold on their independence might be seriously threatened.

Another couple who thought their resources were meagre were Mr. and Mrs. Bryant, although as will be seen, their lack of informal support was to some extent compensated by the continuing care they received from the health and social services. Mr. Bryant was 88 at the start of the study, and Mrs.Bryant was 75. They had been married for 35 years, and had been living in their present home (a spacious, warm and comfortable bungalow) for 15 years. They had no children, and no relatives who visited them. Mrs. Bryant mentioned an invalid sister and several nieces and nephews, but there was no contact between them and they did not appear in the Bryants' story at all during the study. Mrs. Bryant said they knew their neighbours well and got on with all of them, but she didn't think they could do much to help. The Bryants were particularly friendly with the neighbours next door, who seemed to do more for them as their health declined throughout the study; but Mrs. Bryant nevertheless felt that she and her husband had few supports. In reply to the question

about how she would manage if she had to stay in bed for a week, Mrs. Bryant said at the second interview: 'I don't know. My husband can't look after me.' And at the final interview she said, in reply to the same question: 'Goodness knows. I'd have to stay in hospital until I can come home and do my own jobs.'

Neither Mr. nor Mrs. Bryant was in good health. Mr. Bryant was reported at the first interview to be going blind, and he also had difficulty walking. He was managing to do most of their shopping at the beginning of the study, but the distance of their bungalow from the centre of the town made this difficult. At the second interview Mrs. Bryant said that his health had got a lot worse during the preceding six months. 'He can't look after me now. He's not well enough to. He does nothing for me now.' At the third interview she said that she had recently had to leave hospital early on the doctor's advice in order to look after her husband who was failing to care for himself properly in her absence. The fourth interview found Mr. Bryant recovering slowly from a heart attack, but shortly after the fifth interview he died.

Throughout this time Mrs. Bryant was far from well herself. From the outset of the study she described her health as 'very poor'. Her hearing was impaired, and her eyesight failing. She said at the first interview that she had cataracts on both eyes, and during the course of the study she underwent two operations for their removal. Neither operation had been really successful, however, and by the fifth interview both she and her husband regarded themselves as almost blind. Mrs. Bryant was bitterly disappointed that, having waited so long for the operations, they had seemingly been of such little use. Mrs. Bryant had other health problems as well. She spoke in rather vague terms about a blood disease that she had had for several years for which she was taking a variety of drugs and receiving monthly injections from the district nurse. She also said that she had thyroid trouble, and between the first and second interviews she had been found to be diabetic. She became increasingly confused with time, and was complaining at the sixth interview of fleas behind her eyes. As well as all of this, Mrs. Bryant suffered considerable physical disability, although the cause was not clear. At the first interview she reported an inability to move about independently out of doors, and by the final interview she was housebound. She could move about inside the bungalow, albeit with some difficulty, and at various times during the study she reported difficulties with such self-care tasks as getting out of bed, using the toilet, having a bath, eating dressing and brushing her hair.

In spite of their perceptions about their lack of support, the Bryants were receiving care and help from various sources. Two neighbours whom the interviewer encountered on a visit to Mrs. Bryant said that they kept an eye on her, and by the end of the study one of them was doing her shopping regularly. Throughout the entire duration of the study the Bryants' G.P. visited them regularly once a month, and for much of its duration a district nurse visited weekly to see how they were and to assist Mrs. Bryant with bathing. For part of the time a home help came in for three days a week, but Mrs. Bryant said that this was discontinued when the Council insisted on charging them for this service at the highest rate because of their refusal to disclose their income. She then became worried at her inability to do much in the house, and at the total neglect into which the garden had fallen. By the end of the study she was anxious, but somewhat resigned, about the future. 'Everything worries you for the future. Can't think what is going to happen or where you will end your days. I don't want to go in a home ..... I carry on and do what I can. I now get more tired. Very, very tired.'

Several elements of Mr. and Mrs. Bryant's story were similar to those of other married respondents. Like the Triggs and the Penfolds, they were an elderly couple in failing health, with progressive disabilities and few sources of help apart from the statutory services. They were to a considerable degree dependent upon each other for day-to-day support: Mrs. Bryant left hospital prematurely on one occasion in order to resume caring for her husband, and after Mr. Bryant died she felt herself to be without any support in the community at all. However, their experiences suggest that Mrs. Bryant had perhaps exaggerated their isolation and vulnerability, for throughout the duration of the study they were enabled to continue living in their own home with the help of their G.P., the district nurse and (for certain periods) their neighbours and a home help. In this respect they were distinguished from Mr. and Mrs. Penfold, who felt that the social services had served them rather poorly. Yet it was clear that, by the end of the study, Mrs. Bryant's health and capacities had deteriorated to the point where her continued independence was seriously threatened, especially following the death of her husband. The study ended within a few months of Mrs. Bryant's widowhood, and no information is available about her progress; but it seemed doubtful whether she could continue to manage by herself for too long.

The third case study to illustrate this section is that of Miss Impey. Aged 80 at the outset of the study, Miss Impey was a spinster, living alone in a large, comfortable house within reasonable distance of essential shops. Before retiring she had worked as a buyer for a large department store, and she had moved to her present house on retirement. Miss Impey had only one relative with whom she was in regular contact, an elderly female cousin who visited her about once a week. She talked about other cousins, some of whom were living nearby, but she saw almost nothing of them and throughout the study she received no care or support from them. Miss Impey said that she knew her neighbours fairly well, particularly those next door; but she was not sure at the outset of the study that they would help her in any way if she was ill. 'I don't think they could. She has a husband who is not too good. Not that she wouldn't be willing. We're just friendly. I won't say I know them very well.' Later in the study, when Miss Impey was almost housebound, the next-door neighbours were doing her shopping for her, and at the fourth interview she identified them as the people on whom she relied most for help with day-to-day things; but they do not appear to have been a major source of help in the way that neighbours were to some other respondents in the study. In addition to the assistance of her neighbours, Miss Impey had a home help in once a week throughout the duration of the study (although she said towards the end of the three years that she would have liked more help with household tasks), and she was also receiving meals-on-wheels twice a week. She was also going to an Age Concern club whenever transport could be arranged.

Miss Impey felt that she could not command any substantial help if she had to stay in bed for any length of time. At the first interview, in reply to the question of how she would manage if illness or convalescence confined her to bed for a week, she said: 'I wouldn't manage. I'd have to go into a nursing home.' The second interview produced an identical response, and at the fourth interview she said: 'If I had to stay in bed I couldn't cook. There's the lady next door, but she has her husband with a stroke. No, I don't think there is anyone.' In fact, Miss Impey's prediction that she would have to enter a nursing home was fulfilled before the study ended.

At the first interview, Miss Impey described her health as 'not too bad' for her age. She said that she had high blood pressure and heart trouble, for which she had received hospital treatment a few years earlier. She was 'taking a lot of pills' for these conditions, but she did not indicate any particular incapacities caused by them. She had no difficulty, for example, in moving about either indoors or out-of-doors, and she was able to perform

the usual self-care tasks without any trouble. Thereafter, however, her health seemed to deteriorate. At the second interview, in high summer, Miss Impey described her health as only'fair'. She said that she felt very cold, and the interviewer noted that the fire was on. She said: 'I get a bit tired. Don't suppose there is anything wrong, I take lots of pills. It's only old age.' She also mentioned at this interview that it was becoming difficult for her to get into and out of the bath: 'I have one when the home help is here so as I feel all right getting out.'

By the third interview, Miss Impey had slipped further into ill health. She said that she was feeling her age and that her health had got worse during the preceding six months. She mentioned particularly some stomach pains she had been having, and for which she had visited an out-patient clinic at the hospital. She also spoke for the first time about some trouble with her ankles which had made it more difficult for her to get about out of doors. Other activities were also mentioned that were causing more difficulty than usual, including getting into and out of the bath, and doing the shopping. Miss Impey talked about the need for help with the garden, and said that she was thinking of moving to a smaller house with less garden.

The fourth interview found Miss Impey in a very distressed state. The stomach pains to which she referred in the previous interview had been diagnosed as colitis, and she was suffering considerably from it. The experience seemed to affect her general outlook on life: as she put it, 'I seemed to have cracked up ... Everything is difficult now.' Various activities were reported as being more difficult than usual, including using the toilet (which was located upstairs), bathing, shopping and doing jobs in the house and garden. Miss Impey could not get out very much, and by this time she was relying on her neighbours for much of her shopping. She said that she had friends with a car who would take her out, but as she put it, 'I daren't. I don't know if I'd be safe.' Because of her worsening circumstances Miss Impey was talking seriously about moving to a home. She had discussed with the district nurse and a social worker the possibility of going into a local authority home, but she was doubtful whether she would like it, or whether she could cope there with colitis. She thought she would be better off in a nursing home, but was worried about the cost. She argued that if she sold her house, she could not be certain whether she would have enough money to pay the fees for as long as they might be needed.

The fifth interview found Miss Impey in a similar situation. She was very cold and was worried by the size of her electricity bills. She

was unable to use the central heating now because of the difficulty of carrying the solid fuel. She was still troubled by colitis, and she had recently had a fall. 'I just went flop in the kitchen, over nothing.' By this time Miss Impey was almost totally housebound and continued to assert that most day-to-day jobs were causing her difficulties. Soon after this interview, Miss Impey, now aged 83 moved to a private nursing home, where she was when the interviewer called for the last time. She was in bed, and seemed very weak and thin. She said she was well looked after, but now felt useless. 'I just stay in my room ... I just lay here, that's all I do ... I can't walk. Got a stick. I go downstairs once a day. They take me down, but I get up by myself ... I don't get about. I don't feel hungry.' Most of the usual self-care tasks were difficult to perform, but the staff of the home were continually on hand to help. In this sense, Miss Impey had no further worries, although as she remarked, 'I should think so. I pay enough.'

The study seems to have 'captured' Miss Impey at an obviously important time. At the first interview she was in the same position as many other single and widowed women in the study: in reasonably good health for her age, and, with a little support from her neighbours and from the statutory services, able to manage quite well on her own. That interview, however, marked the beginning of a decline in her physical health and capacity, and within three years she was housebound and almost bedridden in a nursing home, with a dwindling social identity and an appearance of psychological listlessness. Several factors seem to have combined to produce such a transition. Her age was one such factor. Had she been ten years younger the outcome might have been different, but by the end of the study Miss Impey was at an age (83) when an independent life in the community might be difficult under any circumstances. The onset of chronic symptoms, particularly those affecting her mobility and capacity for self-care, was another factor. The sudden onset of colitis seems to have had an important catalytic effect in crystallising her appreciation of what was happening, but her accounts suggest that, eventually, her growing disability was the more important factor in relinquishing her home. A third strand in the story seems to have been the growing need that Miss Impey felt for help in the house and garden, which nurtured thoughts about the possibility of moving before her condition made it necessary. It is possible that her rehearsals of the arguments in favour of moving made it easier, or quicker, for her to act at the appropriate time.

Two other points may be noted about Miss Impey's story. One is that she had sufficient resources to buy a place in a private nursing home when independent life in the community became impossible. Had those resources not been available, the outcome (at a time of growing reductions in public

expenditure) might have been different. The second point is that, once in the nursing home, Miss Impey seemed to deteriorate quite rapidly in both social and psychological ways. The rather pathetic accounts of her life in the home contrasted quite sharply with the active and positive approach that had sustained her in her own house until a reasonably advanced age. It would be foolish to over-emphasise the causal link that might have existed in this case, but Miss Impey's story is at least consistent with the desirability of striving as far as possible to support elderly people in their own homes, and to resort to residential care only when the people themselves feel this to be the right move.

HEALTH, ILLNESS AND FUNCTIONAL CAPACITY

The first section of this report set out a simple model of the hospital admission process, identifying points in the process at which the differing conditions and experiences of married and non-married people might give rise to the large variations between them in their hospital admission rates and lengths of stay. One such point was the incidence and prevalence in the community of those conditions of ill health that are commonly treated in hospital. Put simply, non-married people may enter hospital more frequently, and stay longer, in part because they suffer from more illness of the kind that usually results in in-patient care, or because they are more likely to experience limitations in functional capacity that affect their ability to look after themselves when ill. The evidence supporting this hypothesis was reviewed at some length in an earlier report (Butler and Morgan, 1974), and has been summarised above (see pages 3-6). Data from many countries point with remarkable consistency towards higher standardised death rates among the non-married for most major causes of death, and morbidity-related data show similar variations between marital groups. The association between ill health and hospital use seems to be particularly marked for widowed people, who consistently rank high both in hospital utilisation rates and in the prevalence of acute, chronic and fatal conditions.

With regard to physical handicap, the 1968-9 national survey of handicapped and impaired people in Great Britain yielded data (set out in Table A VIII b) from which prevalence rates of handicaps can be constructed for married, single and widowed men and women aged 65 and over living in private households (Harris, et al, 1971). The results are summarised in Table 12. Among all categories of handicap, including those whose impairments presented no difficulty in taking care of themselves, the prevalence rates per 1,000 population among men and women were lowest for the single, next highest for the married and highest for the widowed (including the divorced and legally separated). The magnitude of the range was greater among men than women. A very similar pattern occurred when the data were restricted to the more severe categories of handicap (1-6). Again, the rates among both men and women were highest for the widowed and lowest for the single, with the range being greater among men than among women. For example, the prevalence rate of handicaps in categories 1-6 among widowed men was almost three times the rate among single men, whilst the prevalence rate of widowed women was only twice that of single women. Data collected in the Canterbury survey of the handicapped in 1972 were consistent with the

national picture (Warren, 1974). Using the marital distribution of the 558 handicapped people over the age of 64 identified in the survey (Table 4.2), the estimated prevalence rates of handicapped people per 1,000 population aged 65-74 were 54 for the single, 57 for the married and 92 for the widowed and divorced. Among those aged 75 and above, the estimated rates were 126 for the single, 169 for the married, and 195 for the widowed and divorced. In spite of certain discrepancies between the two studies, both reported consistently high prevalence rates for widowed people and low rates for single people, with the married somewhere in between. Moreover, if the definition of handicap in the Canterbury survey is roughly equated with categories 1-6 of the national survey, it is seen that the actual prevalence rates for each marital category were consistent between the two sets of data.

Against this background of available information, respondents in the present study were asked a range of questions about their health and functional capacities. The main object of these questions was to trace any variations existing between people in different marital status groups in their perceptions of illness and functional capacity, and to relate these to the use of medical care services. The exercise bristles with difficulties. First, there are familiar problems of validity and reliability. Do people actually give clinically valid accounts of their ills in interview surveys, and are the replies reliable in the sense that they would be substantially the same under comparable interviewing conditions at different points in time? These problems are discussed at length in the literature, and they occur in the present study. The interviewer often expressed her feeling that respondents were withholding information, and, as documented later in this section, apparent inconsistencies were observed over time in the replies to some of the questions. Although this study cannot claim to have surmounted these difficulties, two distinctive features of it may go some way towards mitigating their worst effects. One feature is that several interviews were held with the same person at different points in time. This means that excessive reliance need not be placed upon replies to questions posed at one single moment in time, although the technique offers a better check on the reliability of the reporting of chronic conditions and impairments than of acute episodes or subjective perceptions of general health status. Significant variations over time in the reporting of stable, long-term problems would give much stronger grounds for suspecting the reliability of responses than would variations in the reporting of acute conditions or the

respondents' general state of health. The second distinctive feature of the methods used in this study is that, by analysing the material as case studies, replies to several questions can be integrated into a composite picture more readily than by other methods of analysis. For example, information about each respondent's state of health can be constructed not only from direct questions but also from indirect questions, such as the reasons for consulting a doctor or taking drugs, and even from apparently quite unrelated questions or casual discussion with the interviewer. In building up a picture of the health status of respondents, reliance is not placed exclusively upon information offered in response to on or two standard questions at a single point in time.

A second area of difficulty concerns the conclusions that are drawn between, on the one hand, marital status variations in self-reported chronic, acute and disabling conditions, and on the other hand, marital status variations in hospital utilisation. Questions such as those typically used in population surveys about the presence of long-standing illness or infirmity, or about recent limitations in activities because of illness, are likely to identify many conditions that would rarely result in hospital treatment, even among those with low levels of domiciliary support. If the higher prevalence of self-reported morbidity among one particular marital group is to be regarded as a causal factor in the higher rate of hospital use among that group, additional explanations must be offered. Why is it that groups of people who report high rates of overall morbidity in interview surveys also experience high incidence rates of those particular conditions that are usually selected for hospital care? In this context, the implications of the different prevalence rates of handicapping conditions between marital groups are of particular interest. What plausible hypothesis can be advanced to link the high prevalence of handicapping conditions and the high rate of hospital use amongst, say, elderly widowed people? One hypothesis may be that the social factors involved in causing people to be handicapped by their impairments are substantially the same as those that influence the selection for hospital care. Another hypothesis may be that the biological factors underlying the conditions which cause the handicap will also generate other conditions requiring hospital care. The natural sequelae of the ageing process constitute a common factor here. The common assumption between these two hypotheses is that handicapped people are at greater risk of entering hospital not because of their handicaps *per se*, but because of other circumstances (social and/or biological) that are productive both of handicapping conditions and circumstances and of selection for hospital care.

A third hypothesis, which assumes a more direct causal link between the presence of a handicap and the risk of hospitalisation, is that the underlying conditions giving rise to the handicap are themselves more likely to be selected for hospital treatment. This may be the case for many conditions, including most obviously arthritis, strokes, and cardiac and respiratory diseases.

A third general area of difficulty concerns the relationship between people in private households and those in various forms of institutional residence. It is a problem that touches the study at many points. In essence the problem is that, whilst the HIPE and HAA analyses which gave an initial focus to the study include people entering hospital from both private and institutional residences, most of the 'explanatory' material is drawn from studies that are confined to people in private households only. The capacity to 'explain' the variations in hospital use revealed in HIPE and HAA is impaired if attention is focused upon one part only of the pool of potential patients. For example, an explanation that is couched in terms of differences in the health and functional capacity of different marital groups can scarcely ignore the possibility that people living in private households may display different patterns of illness and dependency to those in institutional residences; they may be less likely to suffer chronic illnesses requiring regular nursing supervision or care, and they may be better able to cope with day-to-day tasks of self-care. In fact, however, data from the parallel hospital study suggests that the bias resulting from the exclusion of people living in non-private households may be very small (Morgan, 1979). Such people constituted only about 2% or 3% of the cohort in that study, and because many of them were residing in institutions with regular supervision or nursing care, their dependency upon the acute hospital for general social or nursing care was generally less than among those in private households. A similar impression is conveyed by other studies (for example, Townsend and Wedderburn, 1965).

Health

With these reservations in mind, we turn to the data from the case studies. Various questions were asked at each interview about each respondent's general state of health. As an introduction to this section of questions, respondents were asked how they would describe their health, and whether they felt their health had changed in the preceding six months. In both cases, further questions were asked about the reasons for the replies given.

Table 13 sets out the replies given at the first interview to the question whether respondents regarded their health as excellent, good, fair or poor. No significance can be attached to the meaning of each response, but the replies give a broad indication of the relative perceptions of general health status held by different groups of respondents. No great differences were evident among the marital status groups. About one-fifth of respondents in each group described their health as excellent, about two-fifths described it as good, and about two-fifths as fair or poor. Slightly more favourable responses were given by single and divorced people: 69% of them described their health as excellent or good, compared with 57% of the married and 50% of the widowed, but little significance can be attached to this difference. The introduction of a rough control for age had no effect on the distribution of responses.

The replies to a similar question in each subsequent interview showed relatively little change in the distribution of responses. Those who regarded their health as excellent diminished in number with the onset of various health problems during the course of the study, but so too did the number describing their health as poor. One reason for this was death, for of the 18 respondents who described their health as poor at the first interview, six had died before the completion of the study. Taken as a whole, the respondents' subjective descriptions of their health status throughout the duration of the study offer no firm grounds for distinguishing between the married, the widowed and the single or divorced.

At the second and each subsequent interview, respondents were asked whether they felt their general state of health had changed in the preceding six months. The replies, which are set out in Table 14, are restricted to those who completed all six interviews, and they offer an uncommon glimpse of dynamic changes in the health perceptions of elderly people over time. Two-fifths of those who were married at the outset of the study, one-third of widowed respondents and exactly half of the single and divorced respondents reported no changes at all in their self-perceived health status throughout the three years of the study. This means that at each interview they said that their general state of health had not changed at all in the preceding six months. Between a quarter and a third of the respondents said at each interview that their health had either stayed the same or got worse. Through the duration of the study, therefore, these respondents felt an overall decline in their health status. About a fifth of the respondents said at each interview that their health had either stayed the same or improved. These are the respondents who felt an overall amelioration in their health over the three years of the study. The remaining respondents (including one in five of the widowed people who stayed in the study for its full course) reported both improvements and deteriorations in their health at different times throughout

By taking the marital status of respondents at the outset of the study, Table 14 fails to incorporate the changes in marital status occurring during the course of the study. The effect, however, is fairly small, since those who changed responded in similar ways to those who did not. For example, of the seven married respondents who became widowed during the study, six remained in the study for its full duration; and of these, three reported no changes in their self-perceived health status, one reported a deterioration, one reported an improvement, and one reported both an improvement and a deterioration.

As with the perceptions of health status, these replies on perceived changes in health fail to discriminate in any marked way between respondents in different marital status groups, even with a crude allowance for the differences in the age structure of each group. The next part of the analysis therefore looks beyond the general appraisal of health towards the presence of more specific illnesses and impairments.

Illness

The particular ills and ailments from which the respondents were suffering were elicited through a variety of questions. Some questions were focused directly upon the respondents' illnesses and disabilities; others were less direct (such as the reasons for seeing a doctor or nurse, or for taking regular medication), and these often yielded additional information. In this section, all conditions and symptoms are grouped together, whatever the context in which they were mentioned.

The severe limitations on the usefulness of this set of data must be emphasised. The symptoms and conditions mentioned in the interviews were very mixed indeed, ranging from minor respiratory infections to major life-threatening conditions such as cancer and potentially disabling events such as strokes and heart attacks. An attempt is made to group similar symptoms and conditions together, but the imprecision of the replies allows no more than a rough-and-ready classification, and doubtless contains a wide variety of conditions even within the same broad class. A second limitation is the absence of any systematic measures of chronicity or severity. Given the nature and purpose of the study it was not considered appropriate to use any of the available schedules that elicit valid interview data about the presence and severity of specific conditions; but the result is an obvious loss of systematic control over the dimensions of severity or chronicity. In many instances the replies to other questions gave some indication of the significance that respondents themselves attached to their symptoms, but a reply such

as 'I easily get short of breath' does not itself yield much information about the causes or consequences of the symptom. A third difficulty in this set of data is the absence of systematic measures of clinical validation. Many of the conditions mentioned by the respondents were the diagnoses given to them by their doctors, but a large number of symptoms and conditions had not been referred for professional care, and therefore reflected the respondents' own attempts to interpret symptoms and to guess at diagnoses. Some respondents, in reporting their ailments, appeared to have unusual or incomplete views about the structure and functioning of the human body. Because of the lack of clinical validation, the grouping of symptoms and conditions cannot be very precise; even the 18 principal groups of the RCGP's morbidity classification (1970-71) require information about the underlying causes of symptoms that was not systematically present in the interview data. A final limitation in the data on symptoms and conditions concerns the variations between respondents in the length of their participation in the study. Of the 126 people who were interviewed in the first round of the study, only 88 completed all six of the interviews, and 11 dropped out of the study after the first interview (see page 21). By virtue of this differential length of participation, respondents were at varying risk of reporting symptoms and conditions, particularly short-term acute symptoms. This problem could be handled by restricting the analysis to those respondents remaining in the study for its full duration (as in Table 14) or by controlling for the length of time in the study (as in Tables 10 and 11); but in order to include the maximum amount of data, and to avoid subjecting the data to analyses that are not justified by its quality, all respondents are included, irrespective of the duration of their participation in the study.

Table 15 sets out the symptoms and conditions reported by all respondents at any stage in the study. The age and marital criteria are those at the outset of the study; the table therefore makes no allowance for the ageing of the respondents during the course of the study or for the changes in marital status that occurred to nine of them (see page 24). A separate review of the seven married respondents who became widowed during the course of the study showed that the majority of new symptoms reported by them following their bereavements were in the category of 'mental symptoms' (depression, insomnia), and this accounts in part for the relatively high proportion of married respondents shown in Table 15 with these particular symptoms. Apart from this, the failure of the Table to reflect changes in marital status during the course of the study does not pose any significant additional threat to the validity of the data. Symptoms that were reported on more than one occasion are entered in the Table once only, but respondents

with two or more different symptoms appear in the Table in two or more of the categories. For this reason the cumulative percentages in the Table exceed 100.

The data set out in Table 15 suggest that respondents tended to concentrate on symptoms and conditions causing the most concern and trouble, and to neglect the relatively minor complaints. There is some evidence that symptoms and conditions were more likely to be mentioned if they had had a particular effect upon the respondent in the few weeks prior to the interview, for example by causing more pain or discomfort than usual, or by imposing particular limitations on what people could do. It is also probable that some complaints (such as incontinence) were too embarrassing or threatening to be discussed even with a sympathetic interviewer who became something of a friend during the course of several visits.

The most common conditions mentioned were arthritis and rheumatism. Included in this category are responses that referred, by name, to any forms of arthritis or rheumatism affecting any part of the body. In all, just over a third of the 126 respondents at the outset of the study said at one or more of the interviews that they suffered from these conditions, but the proportion was higher among the widowed than the married within each of the two broad age groups. The next category, 'other and non-specific musculo-skeletal symptoms', contains a mixture of responses, including lumbago, fibrositis, cramp, stiffness, joint pains, backache, etc. Again, just over a third of all respondents mentioned symptoms of this kind at some point in the study, but there was no consistent association with their marital status. The category 'heart and circulation' includes those mentioning specific heart disorders (most commonly angina) as well as high blood pressure, thrombosis, arterial sclerosis, blackouts and giddiness. Exactly a third of all respondents mentioned such complaints, and whilst the younger widowed respondents seemed more prone to them than the younger married people, no differences were apparent at the higher ages.

Among the reporting of respiratory symptoms and conditions, bronchitis has been separated out in the Table because of the specificity and relative frequency with which it was reported. Just over a tenth of respondents said they had bronchitis, usually in a chronic form, and it was mentioned most frequently by younger married people. 'Other respiratory' complaints included minor acute episodes (coughs, colds and influenza) and also such complaints as sinusitis and asthma. There was a notably higher proportion of widowed respondents (particularly those under 75) in this category than

either married or single/divorced people. The category of 'mental' symptoms or conditions included such complaints as depression, nerves, memory failure, irritability and chronic insomnia. Single and divorced respondents were most prominent in reporting these complaints, and widowed people were the least likely to mention them.

The remaining categories of symptoms or conditions in Table 15 were each reported by no more than about 10% of all respondents, and most of them fail to show any large variations between those in each marital group. Older married respondents were particularly prone to reporting visual problems, and widowed respondents seemed to have more digestive problems (including such complaints as diverticulitis and colitis) than the others. Apart from these, no clear conclusions may be drawn about the variations in the reporting of symptoms by married, widowed and other respondents.

These data on self-reported illnesses offer some support for the widespread finding of a greater amount of morbidity among non-married people (particularly widowed people) than those who are married. A number of groups of symptoms or conditions that were common in the study population were reported more frequently by the widowed than the married, including rheumatism and arthritis, other musculoskeletal disorders (among younger respondents), heart and circulatory problems (among younger respondents), respiratory conditions other than bronchitis, and digestive disorders. In contrast, some of the groups were mentioned more frequently by married respondents: these included other musculoskeletal disorders (among older respondents), bronchitis (among younger respondents) and sight difficulties (among older respondents). Several symptoms and conditions revealed no significant differences in view of the small numbers involved. The conclusion that widowed respondents suffered more illness than the married respondents is reinforced by the fact that rather more widowed than married people dropped out of the study before its completion (page 24); the data in Table 15 may therefore underestimate the excess reporting of symptoms and conditions by the widowed. Modifying the confidence of this conclusion, however, is the heterogeneity of the symptoms and their severity, and the consequent difficulty of translating them into single impressionistic measures of health status.

Functional capacity

Two principal sets of questions were asked about the functional capacity of the people in the study. The first set of questions concerned their mobility. At the first, second, fourth and sixth interviews

respondents were asked whether they had any difficulty getting about out-of-doors and indoors. If a positive reply was received, respondents were further asked whether they could get about at all out-of-doors and indoors, albeit with difficulty.

Table 16 sets out the initial responses given at the first interview. The results suggest that age is more closely related to mobility potential than is marital status. Among respondents under the age of 75, at least 80% of the married and widowed had no difficulty out-of-doors and at least 90% had no difficulty indoors. Only one of these respondents (a married woman of 70) was totally housebound. The single and divorced respondents under the age of 75 were very similar to the married and widowed in their capacity for movement indoors, but fewer of them (only 58%) reported no difficulty indoors. As would be expected, a lower proportion of respondents aged 75 and over had no difficulty moving about both indoors and out-of-doors. Fewer than two-thirds of the married and widowed respondents had no difficulty out-of-doors, and 71% of the married and 85% of the widowed had no difficulty indoors. There is a hint in these reports that, unlike the younger respondents, the older married respondents experienced slightly more difficulties than their widowed counterparts. The single and divorced respondents over 75 were very small in number (only four), but none reported any difficulties with mobility.

Respondents changed in their reported mobility capacity through the course of the study. Of the 126 respondents interviewed at the outset of the study, 88 (70%) reported the same degree of mobility out-of-doors at each interview in which they participated, and 109 (85%) reported the same degree of mobility indoors (Table 17). As with the reported mobility at the outset of the study, the results in this Table are more influenced by age than by marital status. Among respondents under the age of 75 at the outset of the study, three-quarters of the married and widowed had no difficulty throughout the study in moving out-of-doors and four-fifths of them had no difficulty indoors. The single and divorced respondents under the age of 75, though few in number, differed from their married and widowed counterparts, for rather fewer of them had no difficulty at all and rather more of them changed their self-assessments during the course of the study. These differences were particularly marked with respect to mobility out-of-doors.

Above the age of 75, the proportions of respondents reporting no mobility difficulties at all declined among the married and widowed, but not among the single and divorced. Only one-third of married and widowed respondents in this age group said at each interview that they had no

difficulty moving out-of-doors, and only two-thirds of them reported no difficulty moving indoors. Conversely, relatively more of the older than the younger respondents had difficulties,or were immobile, or changed their self-assessments during the study. The single and divorced respondents over 75, though only four in number, were rather more likely than their married and divorced counterparts to report no difficulties, either out-of-doors or indoors, for their duration in the study.

The respondents who gave different assessments of their mobility at different interviews are an interesting group. Thirty-eight people gave different assessments of their mobility out-of-doors and 17 people (almost all of whom were also among the 38) gave different assessments of their mobility indoors. Married respondents were the least likely to give different responses, and single or divorced respondents were the most likely. About half of these respondents reported a regular decline in their mobility capacity as the study progressed: that is, about one in six of all the respondents at the beginning of the study felt by the time they completed their last interview that they had more difficulty moving about indoors or out-of-doors. Of the remaining half of people who gave different assessments, only five reported a consistent improvement in their mobility: the rest (amounting to one in seven of all respondents at the outset of the study) gave fluctuating accounts from one interview to the next. Such fluctuations are not necessarily evidence of unreliable reporting. Most of them related to people's mobility out-of-doors, and it is perfectly possible for this to be affected from one interview to the next by changes in health status, weather conditions, and so on. Nevertheless, it would have been a matter of suspicion if large numbers of respondents had offered substantially varying accounts of their mobility potential, and confidence in the data is enhanced by the apparently good consistency in the replies over a lengthy period of time.

The second set of questions about functional capacity concerned the difficulties experienced by the respondents in carrying out ordinary, everyday tasks of self-care. These questions were asked at the first and sixth interviews. Nine tasks were listed, and in each case the respondent was asked whether he or she had any difficulty in performing that task. For each positive response, the respondent was then asked whether he or she could do the task unaided, albeit with difficulty. A negative reply at this point produced a further question about the person or people who usually gave help with the task. The questions were constructed and administered in the exact manner suggested by Harris and Head (1971) and used in the Canterbury surveys of the handicapped (Warren, 1974; Warren, et al, 1979).

The replies given to this set of questions at the first interview are set out in Table 18. There are close similarities between these replies and the replies to the earlier questions about mobility potential (Table 16). Among respondents under the age of 75 at the beginning of the survey, exactly four-fifths of the married and the widowed and two-thirds of the single and divorced reported no difficulties with any of the nine tasks. About one in seven respondents in each marital category reported difficulty with one of the tasks, and the small number of remaining respondents said they had difficulty with two or more tasks. At the age of 75 and over, these proportions changed. Only about half of the married and widowed respondents aged 75 or over had difficulty with none of the tasks, and between a quarter and a third had difficulty with one task. It appears, therefore, that as with the self-assessments of mobility, age is a more important factor than marital status in influencing the reported capacity for self-care. Yet the difference between those who were over and under the age of 75 was principally the difference between those who had difficulty with none of the tasks and those who had difficulty with just one, for in both age groups it was only a handful of respondents who said they had difficulty with two or more tasks.

Comparisons between these replies and those given to identical questions in the original Canterbury survey of the handicapped cannot strictly be made, for the latter was confined to people already identified as impaired through a screening questionnaire; but there are nevertheless similarities between the two sets of data. As in the present study, for example, the Canterbury survey found a reduction (more marked among men than women) over the age of 75 in the proportion of people who had difficulty with none of the nine tasks, and it likewise found that in both age groups a similarly small proportion had difficulty with two or more tasks. Also paralleling the present study, the Canterbury survey found no marked differences between married and widowed respondents in each age group. For example, an identical proportion (59%) of both married and widowed respondents under the age of 75 reported no difficulties at all, and 58% of the single respondents answered in this way. Of those aged 75 and over, the proportions reporting no difficulties were 48%, 49% and 51% respectively among the married widowed and single.

The individual task which caused the most difficulty to respondents at the first survey was that of having an all-over wash or bath: 15% of all respondents said at the outset of the study that they either could not do this at all, or could do it only with difficulty. The proportion of respondents unable to do the remaining tasks, or able to do them only with difficulty, were: putting on shoes and socks or stockings (13%); getting in and out of bed (10%);

doing up buttons and zips (7%); getting to or using the lavatory (3%); combing or brushing hair (women) or shaving (men) (3%); dressing (3%); and feeding (1%). Again, there are similarities between these results and those obtained from the original Canterbury survey of the handicapped. As would be expected the actual proportions of people over 65 reporting difficulty with each task were higher in the survey of the handicapped than in the present study, but the ranking of the tasks was very similar in both investigations. In each case, bathing was the single most difficult task, followed by putting on shoes, getting into and out of bed, and doing up buttons and zips. As with other parts of the data, the close similarity with comparable studies reinforces confidence in its soundness, notwithstanding the fairly small number of people involved.

A small number of respondents altered their reported capacity for self-care between the first and the sixth interviews. Table 19 sets out the relevant information. It is restricted to the 91 respondents who were successfully interviewed in both the first and final interviews: the numbers do not therefore exactly match those in Table 14, which was restricted to respondents participating in all the interviews. The table shows for each activity the percentage of respondents reporting no difficulty at each interview, the percentages reporting either more or less difficulty at the sixth than at the first interview, and the percentage reporting the same amount of difficulty at each interview.

At least nine of every ten people reported no difficulty at each interview with five of the tasks (using the W.C., washing, dressing, feeding, and attending to the hair or shaving). At least eight out of every ten people reported no difficulty at each interview with a further three tasks (getting into or out of bed, putting on shoes, and doing up buttons and zips). One activity (bathing) could be done without difficulty at each interview by three-quarters of respondents. These results correctly emphasise the continuing capacity for self-care throughout the three years of the study by a large majority of the respondents, yet a small proportion of respondents did report some changes. In most cases the proportion reporting an increased difficulty was more or less offset by the proportion reporting a reduced difficulty, but two activities (bathing and feeding) each appeared to present more difficulties to almost one in ten of all the respondents.

Again, there are similarities between these results and those from the Canterbury follow-up survey of handicapped people (Warren, et al, 1979). As expected, the actual proportions of respondents reporting no difficulty

with each task at each of the two interviews were lower in that survey than in the present study, but, as in the present study, a similar proportion of people reported both more and less difficulty for many of the tasks, and bathing was the activity showing the greatest amount of 'deterioration'.

Some illustrative case studies

This section concludes with case studies of five respondents who experienced particularly severe or prolonged problems of ill-health and incapacity.

Mrs. Ludlow's case is interesting because at the outset of the study she was preparing for a new phase of independence. Mrs. Ludlow was 75 at the beginning of the study. She had been widowed since 1964 after 46 years of marriage. Her husband had been a local government officer. At the first interview, Mrs. Ludlow had been living for nine months with her married daughter (aged 56), her son-in-law (60) and their daughter (25). She was happy in her daughter's home, but she was hoping shortly to move to her own flat in a warden-assisted block. As she put it, she was 'longing for her own front-door key'. The move was actually made between the first and second interviews, and Mrs. Ludlow said at the second interview that she was very happy in her new accommodation. It was located about mid-way between her daughter's home and the home of one of her sisters, and she saw both of them frequently. She still had a room at her daughter's house, and went there frequently. She said at the second interview: 'I feel better turning my own key. I wanted to be on my own. It's only fair to the young ones.' As well as her daughter, Mrs. Ludlow had a married son of 53 living in Bedfordshire; she saw him about every other month. She also had siblings living nearby: two sisters (aged 72 and 58) living in the same town as Mrs. Ludlow, a third sister (aged 79) living some 15 miles away, and a brother (67) living in the next village. The two closest sisters were each seen several times a week, although the elder of the two was not in good health. Her other sister and brother were seen about four or five times a year.

Mrs. Ludlow described her health as the first interview as 'poor'. Shortly before the interview she had been in hospital for 7½ weeks with a fractured femur. She said that she was suffering from hardening arteries in her head, two thromboses in her right leg (for which she was on anti-coagulant therapy), and cataracts. She was regularly visiting out-patient clinics for these complaints. Mrs. Ludlow said at this interview that she found it difficult to get about out of doors, although she could manage by herself. 'When I walk too much I get pain. I think it's rheumatics. I'm a bit

frightened of another fall.' However, Mrs. Ludlow reported no difficulty with any self-care tasks. She said at that interview that it would be no problem if she had to stay in bed: 'I'd manage alright here.' She did feel, however, that she would need extra help after she had moved to her new flat.

The move had taken place by the time of the second interview, and Mrs. Ludlow was happy and contented. She now described her health as 'fair', and felt that it had improved somewhat in the intervening six months. She reported no difficulties in mobility, but she was still troubled by her leg. She had seen her doctor about it. 'The leg went funny. I'd had two thromboses ... a fractured hip, then another thrombosis. Now and again I get this terrible pain. The leg's been bad like this for months.' Mrs. Ludlow also confirmed her trouble with hardening arteries in her head and cataracts. How would she manage now if she had to stay in bed through illness? 'I wouldn't. I'd go round to my daughter's.' The third interview, after a further six months, found Mrs. Ludlow in good spirits. She was delighted with her flat, and had plenty of visitors. During the course of the interviewer's visit her daughter, sister, GP and hairdresser all called in. She felt she was getting better, although she was still visiting several doctors in out-patient clinics for her various conditions. She had cut her leg shortly before the interview, which a nurse was coming in to dress, and this had prevented Mrs. Ludlow from bathing; but otherwise she reported no increased difficulty in looking after herself.

At the fourth interview, two years after the initial contact, Mrs. Ludlow was less buoyant. She felt her health was not too good again, and was worsening. She was in such pain in her leg (resulting from a breakdown of the fracture repair carried out two-and-a-half years earlier) that she had decided to have a further operation on the hip, and she was now on the waiting list for it. Mrs. Ludlow also reported a blood condition which caused bleeding 'at the slightest bang'. She thought it may have been due to the steroids she was taking. Several self-care tasks were reported by Mrs. Ludlow to have become more difficult during the previous six months, including using the toilet, washing all over, shopping, and looking after her feet. She said that she would would have to go to the chiropody clinic in the future. Mrs. Ludlow now found it difficult to get about both out-of-doors and indoors (she described the latter as a 'struggle'), and she could not get onto a chair or to the floor to do her housework. Mrs. Ludlow was, however, well supported by her daughter and particularly now by her youngest sister, who lived opposite and came in each day after finishing work. Indeed, Mrs. Ludlow now said that she would go to her sister, rather than her daughter, if illness kept her in

bed. The sister would like her to go there after her forthcoming operation, but Mrs. Ludlow felt she would be alright in her own flat with her family and neighbours to help. She said, 'You live from day to day.'

Mrs. Ludlow's health deteriorated further following the fourth interview. At the fifth interview she was unhappy at getting older and described her health as 'not too good. I keep feeling so poorly'. She was suffering considerable pain from the arthritis that had set in to her hip, and this made it increasingly difficult for her to get about. She was still waiting for a further operation on the hip, but she felt that her blood condition made it risky, and she was not sure that she would actually have it.

The final interview found Mrs. Ludlow, now 77, very disabled and unhappy. She was quite unable to move out of doors by herself, and although she had the opportunity of occasional car rides, she found it a struggle even to get into and out of the car. She could not bath herself and she had difficulty in doing most household tasks and some self-care tasks. Mrs. Ludlow said that she had developed an ulcer on her leg, which was dressed regularly by a visiting nurse, and that she was soon to have an X-ray for a suspected cracked rib. She reiterated the list of chronic complaints from which she was suffering, and added that she had recently experienced heart palpitations. She was still a regular visitor to the out-patient department for temporal arteritis and cataracts. She was taking regular medication for her head, heart and leg. Summing up at the conclusion of the study, Mrs. Ludlow said: 'This is a way of life I never expected. Life's hard. I thought when I got this little flat that I'd be able to trot to town and do this and that, but no, it's not like that at all.'

Mrs. Ludlow was, in many ways, a person at high risk of becoming dependent upon institutional care. An elderly widow, living alone, with progressive disabilities and multiple chronic and acute conditions, she probably fitted closely to the stereotype that is conjured up by the statistical data on the relationship between marital status and hospitalisation. In fact she did not enter institutional care at all during the three years of the study, although she had been in hospital for several weeks shortly before the beginning of the study and she was on the waiting list for a further operation by the end of it. Several factors seem to have played a part in helping her. First, Mrs. Ludlow was very well supported by her family. Her daughter seems to have been a source of constant practical support, and her sister also provided many valuable services. Second, Mrs. Ludlow had sufficient background assurance to encourage her to remain in her flat for as

long as possible. Even at the end of the study Mrs. Ludlow was anxious to stay where she was, but her confidence to do so was bolstered by the availability of the warden at times of crisis and by the knowledge of a room in her daughter's house if her capacity for independence finally collapsed. Third, Mrs. Ludlow received valuable help from the statutory and voluntary services. By the end of the study she was having regular visits from her GP and a district nurse, from a chiropodist and from Age Concern. She had also had various aids and appliances from the social services department that enabled her to cope reasonably well indoors by herself. Without this array of domiciliary help Mrs. Ludlow's capacity for independent living may have been stretched to the point of breaking.

Mrs. Stokes was 70 at the outset of the study and her husband was 74. They had been married for 40 years. Mr. Stokes had spent most of his working life as a cowman, but had been made redundant when the farm was sold for a housing development. He had since worked as an odd-job gardener. Mrs. Stokes described him as 'one of the toughest men going', although the interviewer described his appearance as that of a 'cadaver'. She, herself, was a friendly woman, but felt lonely. At the time of the first interview Mr. and Mrs. Stokes were living in the caravan they had occupied since leaving the farm. The interviewer described it as neat, comfortable and warm, but Mrs. Stokes said that her doctor had advised them to leave, and in any case they wanted a larger home for when their children visited. They were waiting for a council flat. The Stokes' had six children: a son of 48 in Australia, a daughter of 46 in the neighbouring town, a son of 41 in another part of the county, a daughter of 39 and a son of 35 in Sussex, and a son of 31 working in Europe. All except the youngest son were married with families of their own. Mr. and Mrs. Stokes saw their elder daughter once a month on average; the others, with the exception of the son in Australia, were seen between one and four times a year. At the time of the first interview they had recently visited Australia with a view to emigrating there. They reported no other relatives with whom they were in contact.

Mrs. Stokes reported her health at the first interview as 'poor'. In February, ten months before the interview, she had had bronchitis 'pretty badly, and I can't get over it.' In the following months she had collapsed with a mild heart attack on a bus on her way to one of her sons, and she had spent three days in hospital. She had also recently fallen whilst visiting her younger daughter, cutting her head and requiring

outpatient treatment. She complained of headaches as a result of the accident. She saw her doctor regularly for a check on her blood pressure and to collect tablets for that and her chest. She had arthritis in her spine. Mrs. Stokes said at this first interview that she never went out of doors by herself. 'I am scared of it. It seems to be fear, especially since that fall. I go out once a week shopping.' If illness confined her to bed, Mrs. Stokes said, her husband would look after her. 'When I was very ill in February my husband went to phone to the lady at the corner, so she came in, not to work but just to see.' Of her neighbours Mrs. Stokes said: 'I don't think I am well-liked because I don't gossip. Young party next door would do anything for us. That lady who we use the phone from, if we wanted any help she has my daughter's phone number. Trouble is she is a gossip. Lady over there is older than what I am. She is a widow, she couldn't help. I don't have a lot to do with them.'

Between the first and second interviews Mr. and Mrs. Stokes moved to their Council flat, but they were unhappy there. They had expected a community of pensioners only, but found a mixed age group with a large number of troublesome children. 'We don't have any privacy. The children are like wild animals. When you're standing in the kitchen they swear at you and spit at the window. Six or seven-year olds. They use the verandah as a toilet.' Mr. Stokes was unhappy without a garden, and they both hated the gas-fire in the flat. 'I turned it off when we first came. It nearly choked us. We want a coal fire.' Mrs. Stokes found the flat too isolated; she didn't know her new neighbours and wouldn't ask them for help. 'It's awkward in the flats. They're all out of work. Only me here in the day time.' She felt tied to the flat: 'I must never go out alone, the doctor said. If it was the country I could go, but amongst crowds I am finished.' Transport was difficult: 'There are no buses. I go once a fortnight to shop and have taxi back.'

At the third, fourth and fifth interviews Mrs. Stokes continued to complain about the flat. She was still very unhappy, and had asked the Council several times for a transfer to a smaller one. 'There are two rooms empty, it's too big for us.' Neighbouring children were still a nuisance to them, shouting abusive things from the garden. The Stokes' now kept their curtains drawn and pretended they were out. Mrs. Stokes was lonely; she said they would return to a rented caravan if the transfer to another flat did not happen soon. At the third interview, Mrs. Stokes specifically linked her dislike of the flat with what she regarded as her worsening health. 'It (my health) is going down. The worry of this place. Can't

have the gas on too strong for us.' She said that things had been particularly bad in the previous couple of months: it was an effort to get about and her legs were bad in the mornings. At the fourth interview Mrs. Stokes again said that her health had deteriorated. She was still troubled by blood pressure and a fear of crowds, and she had also recently had eczema on her legs. She was finding it increasingly difficult to bath and manage the shopping. She managed the cooking and dusting in the house, but Mr. Stokes did all the floor-level work. When Mrs. Stokes had to stay in bed with 'flu, her husband rang their daughter 'to get her to bring in food'. At the fifth interview Mrs. Stokes talked in non-specific terms about two family shocks they had recently experienced and that had 'put the kibosh on one or two things'. As a result of this, Mrs. Stokes was 'down in the dumps' and having difficulty sleeping. At this interview, too, Mrs. Stokes reported further difficulties in getting into and out of the bath, and walking about.

By the final interview, Mrs. Stokes, now aged 72, was less upset than she had been about the neighbourhood, though she said they were still hoping to move and had had a visit from the housing department. Her health was worse than at the previous interview, and in addition to her regular complaints she also mentioned that her right arm was 'going funny', making it difficult for her to write and knit. She was seeing her GP regularly for checks on her blood pressure and was taking regular medication for it. Mrs. Stokes was still dependent upon her husband for day-to-day care and for care at times of illness. If illness confined her to bed, she said, 'Pop would manage, same as before.' At this final interview, Mrs. Stokes seemed rather more philosophical about her position. 'I don't let things worry me like they used to. Decided not to worry about anything. Only worry is that I fall down and collapse in the street. I'm not afraid of dying at all, as long as I can be cremated. I just want to die as quietly as I have lived.'

The period of Mrs. Stokes' participation in the study was, plainly one of considerable upheaval. The initial move from the caravan to the flat, the growing dissatisfaction with and exclusion from the neighbourhood, and the attempts to obtain a transfer to another dwelling were all events that might cause disruption and concern to anyone of her age, but their impact may have been heightened in the case of Mrs. Stokes who even before the move had experienced a mild heart attack and had a fear of mixing with people. In one of the interviews she specifically attributed her worsening health to her dislike of the flat and the neighbourhood. However, in spite of a progressive deterioration in her self-assessments of her health,

Mrs. Stokes did not give the same impression as many other respondents in the study of being close to the margin of her capacity. She certainly had a variety of health problems, but she seemed able to cope satisfactorily with the help of her husband and daughter, and she rarely mentioned any additional help that she would like to have. By the end of the study Mrs. Stokes seemed to have reached a balanced view of her situation (in spite of reporting further new symptoms), and was facing the future with equanimity.

Mrs. Love was also in a similar position by the end of the study. At the beginning, however, she had been highly suspicious of the interviewer. Aged 68, Mrs. Love had been widowed ten years earlier, and was living with Mr. Love as his common-law wife. She had not married him, as his legal wife reacted violently to the idea of a divorce, and they had not pressed her. But Mrs. Love worried about her status. Mr. Love, a retired seaman, was 68. He described himself as very fit, although Mrs. Love said at the first interview that he had a suspected stomach ulcer (though he had never seen a doctor about it), and at the second interview that he had just been found to have diabetes. He had one son by his marriage, a married man of 45 living with his family in Essex. The Loves saw him once or twice a year, but as Mrs. Love explained, he wouldn't help her because he still had his own mother to worry about. Mrs. Love had two daughters from her own marriage. The elder, aged 44, was married with two children and lived in London. She and her husband ran a pub, which took up much of her time. The younger daughter had 'just dropped dead three years earlier.' Mrs. Love said: 'That broke me. I lost my confidence.' She attributed many of her troubles and worries to that event. Mrs. Love mentioned several relatives with whom she was in contact: a married brother of 64 living in the same town; a younger married brother in London; a sister and brother-in-law, both in their fifties, in London; and a grandson and grand-daughter in their twenties living in another part of Kent. All of these relatives were seen several times a year, but Mrs. Love never mentioned any of them as possible sources of help at times of illness: she said she would have to rely exclusively upon her husband. At the first interview Mrs. Love said that she was 'not too friendly' with her neighbours and did not think they would help, but by the sixth interview she appeared to have changed her mind, claiming that she got on very well with all of them, and that there were several she could call upon for help if she needed it.

Mrs. Love described her health at the first interview as 'fair' . She reported suffering from angina, arthritis, rheumatism in the hands, and high blood pressure. She was taking sleeping tablets. At the second interview, Mrs. Love expressed positive concern about her health. In addition to the complaints reported at the earlier interview she said that she suffered from giddiness and some exhaustion. These were linked in her mind with her worry about her daughter's sudden death. But she hadn't consulted her doctor since the first interview. 'I don't go to doctors. My husband says I'm silly, but if you think it serious enough you should go.' Mrs. Love did say, however, that she had an appointment with her doctor for a check-up on the following day. Her husband had eventually persuaded her to go because of the increasing difficulty she had in walking, caused by her aching legs.

The third interview revealed that the visit had proved to be important. In examining Mrs. Love, the doctor had noticed her 'distended tummy', and a diagnosis of fibroids was eventually made. According to Mrs. Love, the doctor had been 'very annoyed' with her for not coming earlier. He had, she said, been 'rather open' with her: he decided not to send her for an operation because there was no bleeding, but he hadn't been very optimistic - 'he said he hoped I wouldn't land up in a wheelchair.' The diagnosis and symptoms were of considerable significance to Mrs. Love; she said that her whole way of life had altered, and that she could no longer enjoy herself going out to friends, or to walk, or even to shop. She was depressed with herself and felt things were getting worse. She found it increasingly difficult to get about out of doors because of osteoarthritis in her legs, and more difficult to move around indoors. 'Getting up off chairs are difficult. I have to straighten slowly.' During the preceding six months Mrs. Love had found it more difficult than usual getting into and out of bed, getting to the toilet, dressing, shopping ('it kills me'), and doing jobs around the house.

The fourth interview found Mrs. Love more depressed than before. The doctor had said that the fibroids had 'gone too far to operate', but Mrs. Love thought they were growing bigger and she was increasingly conscious of - and worried by - the size of her stomach. 'My big tummy really worries me. I've read in the paper about faith healers; I'm thinking of that.' Mrs. Love had been visiting an osteopath, and had got relief from the osteoarthritis in her legs, but nevertheless, 'I don't go out like I used to. I used to like to go out a lot, but now I'm too tired to want to.' Between the third and fourth interviews Mrs. Love had been referred to an outpatient clinic for a barium meal and X-ray, the result of which had been a diagnosis of diverticulitis. Mrs. Love said: 'It was new to me, but the hospital said I'd had it

for years.' It was to this that she attributed wind and loss of appetite. Several things had become more difficult for her during the previous six months: getting into and out of bed, getting to the toilet, bathing, eating, shopping and doing household jobs. But Mrs. Love was still well supported by her husband. 'He wouldn't leave me; do anything for me.'

Soon after this interview, Mrs. Love had had a further diagnostic examination under general anaesthetic, and a diagnosis had been made, according to Mrs. Love, of a perforated bowel. She said she had been told that this was the cause of her enlarged stomach, and although she was disappointed that nothing could be done about it, she seemed to have accepted the situation. She said, 'I had an exploratory operation for cancer. It wasn't cancer, but a swelling. I'd hoped for the removal of the swelling, but there was no question. I'm on a diet now, no white flour; it's a bran diet. I've started to live with it. I know there is something there.' Perhaps because of the relief of knowing that she did not have cancer, Mrs. Love seemed to have adopted a different attitude to her other ailments. She said that the osteoarthritis in her legs was troubling her less, and that she was less depressed than she used to be.

Mrs. Love's apparent improvement had been maintained by the sixth and final interview. She said that her diverticulitis was under control, though she had to be careful about what she ate and she had off-days with pain. Mrs. Love was troubled with arthritis in her fingers, which made it difficult for her to cope with buttons and zips, but she was taking pain-killers regularly, and these made the condition tolerable. At this final interview Mrs. Love was cheerful, and said that she managed to get out and about quite a lot, though mainly as a result of her husband's prodding. She reported no unmet needs, and was not receiving help from any services. She had no anxieties about the future.

Mrs. Love's participation in the study appeared to coincide with a period of waxing and waning concern about her health. Throughout the entire duration of the study she reported a consistent array of chronic complaints, but her concern about these was overlaid by the symptoms of her enlarged stomach and their diagnosis. The coherence of Mrs. Love's account of this is somewhat blurred, but it suggests that an initial diagnosis of fibroids was subsequently superseded, following hospital examination, by a diagnosis of a perforated bowel. The significance of the diagnosis to Mrs. Love seemed to lie in its elimination of cancer; for although she had not explicitly expressed a fear of cancer, the confirmation that her symptoms were not caused by it seemed to come as a relief to her in spite of

the fact that an operation had been ruled out. From a state of considerable depression and disability at the mid-point of the study, Mrs. Love improved at the fifth and sixth interviews, reporting less depression and much more mobility. In coping with this episode, Mrs. Love received a good deal of support from her husband; it was he who first persuaded her to see her G.P. about her symptoms, who coped with things when she was at a low ebb, and who at the end of the study appeared to be encouraging her to get out of the house more frequently than she might herself have wished. As she herself said, 'He's so dependable.' Unlike several married couples in the study, who seemed to be propping each other up in their infirmities, the Loves gave the appearance of a household in which the stronger member was positively instrumental in supporting the other through a period of crisis.

Mr. Downs was 67 at the beginning of the study, and married for the second time. He had retired some five years previously when his own small business went into liquidation. His present wife, to whom he had been married for 25 years at the outset of the study was 53. She was out of work at the time of the first interview, but she became employed during the first year of the study, and as will be seen, moved later to another job that took her away from the home during the week. Mrs. Downs described herself as fit, apart from a slight touch of rheumatism in her shoulder. Mr. Downs described her as being 'as strong as a horse'. The Downs' lived in an oldish bungalow, some way from the shops; but it was furnished in modern style, and very warm. Central heating had recently been installed, but Mr. Downs worried constantly about the size of his fuel bills. The Downs' were fairly isolated from friends and neighbours. They never went out to see friends and they did not get on very well with their neighbours. Mr. Downs explained: 'If we did have friends we wouldn't see them too often. We are very quiet. We prefer it that wya.' Would their neighbours help them in any way? Mr. Downs replied that 'the lady next door is very kind, she would help with errands.'

Mr. and Mrs. Downs had three children. The eldest, a son, was in his thirties, but they had lost touch with him. 'He's a wanderer; he has a furnished room, but don't know where.' The middle child, a daughter aged 30, was married with three children and lived in London. They saw her about once a year. The youngest daughter was 23, and at the time of the first interview was living with her husband and child in Belgium. Mr. Downs mentioned only two other relatives with whom they were in regular contact - his mother and

father-in-law, both in their eighties, living in an old people's home in London. They visited them once a fortnight, but Mr. Downs said that they were 'on the way out'.

Mr. Downs suffered from Parkinson's disease. He was bent when standing, because he found that posture more comfortable, and he found it increasingly difficult as the study progressed to move about out of doors, Eating was sometimes a problem to Mr. Downs because of shaking hands, and in fact he usually ate separately from his wife. He said that he often visited the doctor to ask if anything further had been discovered in the treatment of the disease. In addition to Parkinson's disease, Mr. Downs suffered from chronic bronchitis, cataracts (for which he was making regular visits to the out-patient clinic) and painful corns on both feet. He had difficulty in either hearing or understanding what was said at the interviews, although the interviewer noted that he always gave coherent replies to the questions. Mr. Downs described his health at the first interview as 'very poor', and by the second interview he felt that things had got worse: the pains in his muscles were more intense, he had little strength, and the corns on his feet were rendering walking a painful experience. Nevertheless, Mr. Downs said that he tried to keep as active as he could, making efforts to mow the lawn and polish the floor. He had very little support from his children, and relied heavily upon his wife who, he said, treated him 'like a baby'.

At the third interview, Mr. Downs was very unhappy about the progress of the Parkinson's disease. It was becoming more and more painful in his leg and back, and he had also developed ulcers on his legs. A nurse was visiting to dress them. Mr. Downs said he was getting very forgetful; he thought this was a symptom of the disease that his wife could not understand. Nevertheless, he was getting up at six o'clock each morning to see her off to work. Mr. Downs said at this interview that it was more difficult for him to walk, on account of 'the terrible corns on my blasted feet', and also to do any shopping. 'Any weight wears me down.'

The fourth interview found Mr. Downs in a worse condition. 'I get more pain. The whole leg feels as if it is bruised. The thigh is thinning, wasting.' He said his back was swollen around the spine, and that he had a big ulcer on his leg and 'terrific corns' on both feet. Indeed, he identified the corns as his biggest trouble: they were now making it very difficult for him to move about. Mr. Downs reported other worries too. His younger daughter had returned home from Belgium, now with two children, and they were living temporarily with Mr. and Mrs. Downs pending a move to their own house nearby. Mr. Downs found the arrangement unsatisfactory, as the older child

was 'very difficult' and the daughter was awaiting psychiatric treatment. He also expressed financial worries about the future, and said he would like to provide more financial security for his wife.

The interviewer noted at the fifth interview that Mr. Downs was somewhat incoherent in his conversation, and forgetful . His daughter and her children had moved to a nearby flat, and since then Mr. Downs had been sleeping in the sitting room. His health was, he said, 'a bit on the rough side', but with the help of his wife he was managing to cope. Soon after this interview, however, Mrs. Downs (for reasons which were not clear) took a job in London and lived there during the week, returning only at weekends. Throughout the week Mr. Downs had to manage on his own. Though still in considerable pain and disability, he said that he just about managed to get by, coping with most of the household chores on his knees and occasionally being able to get to the shops by bus. At his final interview Mr. Downs reiterated his list of illnesses, saying that his eyesight and hearing were getting worse, and that the pain from the ulcer on his leg was exceedingly troublesome. 'I could almost cry with it.' In fact Mr. Downs had eventually consulted the doctor about it again, and had been referred for radiotherapy. Mr. Downs simply commented that 'I think it is some kind of a cancer.' At the conclusion of the final interview he identified the increasing pain from his leg as the most significant single concern during the three years of the study.

Clearly, Mr. Downs suffered from extensive disabilities. To the physical problems posed by his failing eyesight and hearing, the symptoms of Parkinson's disease, the mobility restrictions caused by corns and the pain from ulcers on his leg, may also be added the manifestations of forgetfulness and confusion that appeared to intensify during the three years of the study. His general state of health, in his own view, deteriorated throughout the study and appeared, by the end of the study period, to offer no prospect of improvement in the future. In coping with this daunting array of health problems Mr. Downs had almost no sources of family or neighbourhood help apart from his wife, and her removal to London during the week can only have intensified his difficulties. Mr. Downs received periodic visits from a district nurse during the latter half of the study to dress his ulcers, and he had also started to visit a chiropodist for care with his corns; but apart from these and fairly regular visits to his GP and to the eye specialist in the out-patient department, he had no other help. Though only 69 by the end of the study, Mr. Downs' situation seemed to be very difficult indeed.

Mrs. Willoughby was an 89-year old widow at the outset of the study, living by herself in the solid terraced cottage she had occupied for 45 years. She had been widowed for almost twenty years, having been married for almost 50. Both she and her husband had been farm workers, and Mrs. Willoughby was independent and self-reliant, scorning home-helps and meals-on-wheels. 'They only come on two days. If you can cook on five days, you can cook on seven.' Of her friends she once said that although they would be willing to do many things for her, she wouldn't let them. And her daughter once remarked to the interviewer that she could only do 'bits and bobs' for her mother because she was so independent. Mrs. Willoughby also complained about doctors. 'I don't trouble them much. They don't have time for anyone much. They spend more time in the hospital than visiting patients. They never call even when they say they'll call back.' She said later in the study that she thought it would be a good idea for all GPs to make regular monthly visits to their elderly patients.

Mrs. Willoughby had two daughters: one, a widow of 61 at the outset of the study, lived in the next town; the other, a married woman of 64, lived in a house backing on to Mrs. Willoughby's garden. Both daughters were seen regularly - at least once a week - and they helped her to the extent that she allowed them to. They were particularly helpful with jobs in the house requiring stretching or bending. The elder daughter suffered from blackouts, and her husband received in-patient psychiatric treatment from time to time, but Mrs. Willoughby was nonetheless well supported by her daughters. She had no other relatives, but she knew all her neighbours very well. 'I've known number six since I was a girl, she comes in every evening. They do my shopping and get my pension.' But when asked how she would manage if she had to stay in bed with illness, Mrs. Willoughby said consistently that she would go to her daughter in the next town.

At the first interview, Mrs. Willoughby said she suffered from arthritis in her spine and legs, and also from high blood pressure. She had recently had an X-ray on her back. As a result of her arthritis, Mrs. Willoughby found it difficult to get about. She said at the first interview: 'I only go out to get some firing in, and go to the old people's club. They pick me up.' She also reported some difficulties in getting dressed, and in having a bath - which consisted of a weekly wash in an open tub by the fire. At the second interview six months' later, Mrs. Willoughby felt that her legs had got worse. 'Some days they feel better than others. Sometimes they're very bad. I'm on them too long, but if you just sit about you get stiff.' Nevertheless, she was still getting to the old people's club, and to her daughter's in the

neighbouring town, when fetched by car. She had acquired a Zimmer frame from the Red Cross. Four months before the second interview, Mrs. Willoughby had seen her doctor, on the suggestion of her neighbour, for what was diagnosed as colitis. I'd had it for a fortnight. Couldn't keep anything in. I was getting so weak.' She said the doctor gave her some white tablets and said he'd come back on Friday; but 'I never saw him again'. During the episode Mrs. Willoughby had carried on normally, and had had no extra help in the home. The only new service she mentioned was a private laundry, arranged by her daughter.

The fourth interview found Mrs. Willoughby debilitated, with badly swollen legs and feet. She was breathless, and said it was very difficult to get up and down stairs. She sometimes slept downstairs. Mrs. Willoughby felt her health had got worse - 'much worse'. She said: 'I feel all right myself, but my legs - can't get about on them. And the breathing and that.' She reported increased difficulty with several self-care tasks, including using the toilet, washing, and managing the housework. 'I can't do anything I'd like to. The biggest thing is getting the firing in.' Between the third and fourth interviews Mrs. Willoughby had had what she described as a heart attack, but she was rather confused in describing it. According to her account a neighbour had called the doctor, who took a long time coming. Mrs. Willoughby had been admitted to hospital for 11 days, after which she had returned to her own home. Her neighbours and daughters had helped her to manage. Mrs. Willoughby was still determined to remain independent; she said: 'I often wish I'd died when I was ill.'

At the fifth interview Mrs. Willoughby was looking a little better and was less breathless, but she still felt very debilitated by her swollen legs and the pain from the arthritis in her back. She had had her bed moved downstairs and now slept permanently in the sitting room, but Mrs. Willoughby realised that this arrangement increased the risk of her becoming bed-ridden - a possibility that she dreaded. At this interview Mrs. Willoughby said that she was now unable to get out beyond her garden, and that even moving around indoors was becoming a problem. 'It's because of my legs, it's a job to drag them along.' Dressing, getting to the toilet, and doing housework were all mentioned as things that were becoming increasingly difficult. But Mrs. Willoughby continued to be well supported by her daughters and her neighbours, and the only unmet need for help that she felt was in coping with the garden.

The final interview found Mrs. Willoughby, now aged 91, in a similar state. She felt frustrated at her limitations, but she was pleased still to

be able to pick fruit and vegetables from the garden and make her own jam. With the help of her daughters and friends she was managing to cook for herself and do the basic housework. But she said she hated not being able to do more, and having to waste time sitting with a hot water bottle waiting for the aspirins to ease the pain of arthritis. Mrs. Willoughby was still very restricted in her mobility. She could move about indoors only with the aid of two sticks, and this hampered her in carrying things around the house. The only occasions when Mrs. Willoughby went out were when she was taken by car to an over-60s club. She said at this final interview that she was more or less cut-off from her doctor because of the times of the surgery. 'It's 9 to 11, and people who have cars have gone to work by then.' This was the first reference that Mrs. Willoughby had made to any difficulty in contacting her doctor, and in fact she said that she had not seen him at all in the six months since the previous interview. Mrs. Willoughby repeated the problems she had in carrying out several self-care tasks, including bathing, putting on shoes and stockings, feeding herself and brushing her hair. Indeed, in reflecting upon the three years of the study at the end of the final interview, Mrs. Willoughby identified the change in her capacity to do things as the most significant event in her life. As she put it, 'I've altered a lot. I could get about more. I could do more when you came first.'

Mrs. Willoughby was the oldest respondent in the survey living alone. By many criteria she should perhaps have been in a residential environment, for she was far from well throughout the period of the study and there was evidence from her own accounts that she did not always receive an appropriate standard of medical care. On one occasion, for example, Mrs. Willoughby said that a follow-up visit from her doctor had not materialised, and on another occasion she seems to have been abruptly discharged from hospital, with inadequate arrangements for follow-up care. (It must be emphasised, however, that Mrs. Willoughby's account of this episode was rather muddled). Nevertheless, Mrs. Willoughby's independence was entirely of her own choosing, and seems from her own account to have been a reflection of her general attitudes to life. She always presented herself as self-reliant, refusing some of the help offered by her daughters and neighbours, and often commenting on the worse plight of many other elderly people. Her whole attitude throughout the study was one of fierce independence and of frustration at the infirmities that threatened it. She was receiving very little help from any of the statutory services and she rarely mentioned any additional help that she would have liked to have had. It also seems likely, however, that Mrs. Willoughby's spirit of independence was substantially sustained by the help and support given to her by her daughter and friends. The fact that one or other of the daughters was

present on several occasions when the interviewer called suggests that they kept a very close eye on the'r mother, in spite of the limitations she imposed on what they did for her. Mrs. Willoughby was in no doubt that her daughters held the key to her fate if her capacity for living alone collapsed, for in reply to the question of how she would cope if illness confined her to bed for a week, Mrs. Willoughby promptly said that she would go to one or other of them. The combination of a spirit of self-sufficiency and a high level of background support from family and friends sustained Mrs. Willoughby in her independence in the face of substantial odds.

THE USE OF HEALTH AND SOCIAL SERVICES

The link between marital status and the use of health services is well established. The evidence was reviewed briefly in the first section of this report and at greater length in the interim report (Butler and Morgan, 1974). The main object of this study has not been the further elaboration of this link, but rather an exploration, principally through longitudinal case studies, of circumstances that have been advanced to explain the link. However, the parallel study by Morgan (1979) suggested that, because of the taut supply of beds in the district general hospital serving the study area, the association between marital status and hospital use is less marked in this particular location than is generally the case. Morgan found, for example, that the wards in the study hospital were characterised by a fairly high clinical threshold of admission and a relatively low level of recovery at the time of discharge and this pattern of work tended to depress the variations in use (particularly with respect to length of stay) between groups of patients with different social characteristics. Since the respondents in the present study were drawn from the same broad area, a similar trend might be expected amongst them, notwithstanding the generally representative nature of the respondents at the outset of the study in terms both of their demographic structure and their similarity with other groups of elderly people among whom comparable information has been collected.

Use of hospitals

Respondents were asked at each interview whether they had been in hospital, for overnight or longer, at any time in the preceding six months. The data in Table 20 show the number of respondents reporting at least one episode of hospital care throughout the period of their participation in the study, expressed as a percentage of the number of respondents in each age and marital group at the outset of the study. Taken at face value, the results are at odds with the evidence about the more extensive use of hospitals by non-married than by married people. Among respondents under the age of 75 at the outset of the study, about one-in-five of those in each of the principal marital groups had at least one spell as a hospital in-patient during the course of the study. Among those aged 75 and above at the outset of the study, about half of the married and the single or divorced respondents had at least one spell in hospital, but only one in eight of the widowed respondents reported such an event. Multiple admissions were reported by five respondents, four of whom were married at the outset of the study and one of whom was widowed. One of these four married respondents became

widowed during the course of the study, but in fact all her hospital admissions occurred before the death of her husband. The reported median lengths of stay were higher for the widowed than for the married respondents under the age of 75, but were identical for those aged 75 and above.

How are these rogue results to be explained? One explanation may lie in the unrepresentative nature of the sample at the outset of the study. The evidence, however, does not support this. It has already been noted (page 22) that the sample was acceptably representative, in terms of age, sex and marital status of the population from which it was drawn, and the characteristics of the respondents corresponded very closely to those of a much larger group in a recent national survey (Hunt, 1978). A better explanation may lie in the variable drop-out rates during the course of the study between respondents in different marital groups. By aggregating all reported hospital admissions together, Table 20 makes no allowance for the fact that more older than younger people, and more non-married than married people, failed to remain in the study for its full course. A related problem is that, by basing the percentages in the table upon the number of respondents in each marital category at the outset of the study, no account is taken of the change in marital status of nine of the respondents who remained in the study for the whole duration. Although the numbers are small, a finer analysis of the data in Table 20 suggests that the distorting effects of these two processes may not be very great. Comparison between the proportions of respondents in each age and marital category who reported a hospital admission at each individual interview indicates that, even allowing for changes in the size and marital composition of the sample from one interview to the next, there were few differences between married and widowed people under the age of 75, and a greater proportion of married than of widowed people admitted at the age of 75 and above. It appears, therefore, that the data are 'real' and cannot be adjusted on account of the simplified way in which they are presented in the table. Among this group of people, there seems to be no tendency for the widowed to be admitted to hospital more frequently than the married, and a tendency only among the younger widowed respondents to remain in hospital for longer periods of time. This result is reasonably consistent with what might be expected on the basis of Morgan's study, and in the absence of further clarification the conclusion must be drawn that the observed pattern of hospital admission was influenced by the taut supply of hospital beds within the study area. Had the availability of beds been freer, lower thresholds of admissions might have been obtained, and more distinctive variations between the marital groups might have emerged.

Table 21 sets out, in a similar form to the preceding table, the number of interviews at which an attendance (or attendances) at a hospital out-patient clinic was reported to have occurred in the previous six months. The pattern here is more in accord with national trends (page 8). Among respondents under the age of 75, a markedly lower proportion of married than of widowed people reported no out-patient visits, and a correspondingly higher proportion reported such visits at one or more of the interviews. Among respondents aged 75 and above, married people reported significantly more out-patient visits than both widowed and single or divorced people. As with the data on hospital in-patient admissions, these results are not greatly affected by the change in marital status that occurred to nine of the respondents during the course of the study, or by the variable drop-out rates between respondents of differing marital status. However, the finer analysis that supports this statement involves very small numbers in some cells, and should be regarded as indicative rather than definitive.

Use of general practitioners and community nurses

At each interview respondents were asked how many times they had consulted their general practitioners during the preceding six months. Although it had originally been intended to check reported consultations against the records of the doctors concerned, it proved impossible to sustain the co-operation of the doctors in doing this. The reported consultations must therefore be taken at face value, although there is evidence that the reporting of visits over a six-month recall period suffers from errors of memory.

Table 22 shows the distribution of the mean number of reported GP visits in each six-month recall period, arranged according to the age and marital status of respondents at the outset of the study. By analysing the data in this way an allowance is automatically made for the variations in the total number of interviews completed, though not for the changes in marital status that occurred to nine of the respondents. The effect of this latter process is to inflate the apparent consultation rates of married respondents at the expense of widowed respondents, for most of those who became widowed during the course of the study intensified their normal pattern of consultations in the period following their bereavement.

As with the data on hospital utilisation, these data on reported GP consultations reveal no great variations between the married and the non-married in each of the two broad age groups. Among those under the age

of 75, half of the married respondents and two-fifths of the widowed respondents reported fewer than one visit, on average, at each interview, and exactly a fifth of both married and widowed respondents reported an average of between one and two visits at each interview. When the allowance is made for the larger proportion of widowed than of married people who failed to give a clear answer to the question, and also for those who became widowed during the course of the study, it is clear that the differences between the younger married and widowed respondents were very small. The single and divorced respondents under the age of 75, though fewer in number, displayed a greater polarisation in their consultation patterns. Compared to their married and widowed counterparts, rather more of them had both a low consultation rate (fewer than one visit, on average, in each six-month period) and a high consultation rate (more than 3 visits). Among respondents aged 75 and above, there were likewise few differences between the married and the widowed. The single and divorced respondents in this age group were only four in number, and they were scattered throughout the range.

Respondents were also asked at each interview whether they had seen a nurse in the preceding six months, other than in hospital. No additional information was sought routinely about the number of occasions on which a nurse was seen, or where the encounter took place. The replies are set out in Table 23, which follows the same pattern as Table 21 on hospital out-patient attendances. The table offers evidence that, at the younger ages, the non-married respondents were more likely to have had regular contact with a nurse than their married counterparts, and in this particular case (unlike that of hospital admissions) the difference is augmented if account is taken of the greater proportion of non-married than of married respondents dropping out of the study before its completion. Information gleaned from other questions in the interviews suggests that the majority of these contacts with nurses occurred in the respondents' own homes (rather than, for example, in surgeries, clinics or health centres), and the case studies already presented contain examples of people living alone and being visited regularly by a district nurse or health visitor to offer assistance with such activities as bathing, or even just to keep an eye on the person's well-being. Interestingly, however, a similar trend is not to be found amongst those aged 75 and above, where there is evidence of more regular contact with nurses by the married respondents. An explanation for this might lie in the phenomenon, documented earlier in this report, of frail elderly married couples, just able to support each other with some outside nursing help. The case of Mr. and Mrs. Bryant (page 71) is illustrative of this.

Use of other services

Respondents were asked at the first interview whether they were currently receiving help from any of the following services: district nurse or health visitor, chiropody, home help service, day centre or day club, meals-on-wheels, laundry service, day hospital, services offered by churches, services offered by voluntary organisations such as Age Concern or the Red Cross Society, and the local authority social services department. In all, almost two out of every five respondents at the outset of the study were receiving help from one or more of these sources, and this proportion remained virtually the same among widowed people at all ages, among married people aged 75 and above, and among single and divorced people under the age of 75. The deviations from this pattern occurred among married people under the age of 75, of whom only a quarter were receiving one or more of these services at the outset of the study, and single or divorced people aged 75 and above, all four of whom were in receipt of at least one of the listed services.

Direct comparison between these results and those reported by Hunt (1978) from the national survey of elderly people at home is not possible. The report of the national survey contained information about the number of elderly people who were visited at home during the six months prior to the interview by a variety of 'officials', including social security officers, doctors and insurance men. Because of the wider range of agencies included in the national survey, the actual proportion of elderly people reporting a visit from at least one of the 'officials' was higher than the proportion of people in the present study who said that they were in receipt of one or more of the listed services, but there is an interesting parallel between the two studies in the absence of any marked variations in response between people of differing marital status. The divorced and separated respondents in Hunt's survey were distinguished by the high proportion of them reporting no 'official' visits at all (49%), but the difference between the married, widowed and single respondents covered no more than five percentage points.

Respondents in the present survey were asked at each subsequent interview about any changes in the services they were receiving, but few major changes were reported. There seemed to be a good deal of stability throughout the three years of the study in the way in which these particular services were used. Of the 88 respondents who completed all six interviews, 60 (68%) reported the same pattern of service use throughout the entire duration of the study (including, of course, those who made use of none of the services), and most of the reported changes in service use concerned the take-up or

relinquishing of chiropody. Indeed, care by a chiropodist was the single most frequently used service among those listed, accounting for 41% of all service contacts mentioned by respondents at any time during the three years of the study. However, this item of information must be treated with great caution, for an unknown portion of the chiropody received by the respondents was paid for privately, and cannot therefore be classified in the same way as the publicly provided services. Day centres or clubs were the second most frequently used services among those listed, accounting for 12% of all service contacts mentioned throughout the study. This particular service did distinguish between respondents of different marital status: 25% of those who were single or divorced and 22% of those who were widowed at the outset of the study reported attending a day centre or club at some time during the study compared with only 6% of those who were married. The next most frequently used services were home helps (accounting for 8% of all service contacts) and meals-on-wheels (accounting for 6% of all service contacts).

Illness behaviour

A few simple questions were asked at some of the interviews with the intention of probing certain dimensions of illness behaviour - that is, the general disposition of respondents to behave in certain ways in relation to medical care services. These questions were not entirely successful, and the results are reported briefly here more by way of announcing their existence than of proclaiming their significance.

At the fourth interview, respondents were asked what they thought they might do if they experienced the following symptoms: a constant feeling of depression for about three weeks, difficulty in sleeping for about a week, a heavy cold with a temperature and running nose, a headache more than once a week for a month, a very sore throat for three days and no other symptoms, and a boil that doesn't clear up in a week. Similar questions have been widely used in health surveys to tap any variations between different groups of people in their predisposition towards professional medical care. The questions were included in the present study in order to see whether the non-married respondents were more likely to think in terms of professional care when confronted with common symptoms than were the married respondents. The replies were classified according to whether or not a doctor would be consulted, and a mean score for each age and marital group was calculated, based simply upon the number of times that a doctor would be consulted for each symptom. Thus a maximum score of 6.0 would be obtained in a group if all respondents in that group had said that they would consult a doctor for each one of the six symptoms.

The overall scores were 3.0 for married respondents, 2.8 for widowed respondents and 2.6 for single and divorced respondents, indicating a slightly more pronounced predisposition towards professional medical care on the part of married than of non-married people. However, the introduction of a control for age distorted the picture, for whereas the younger (<75) married respondents had a higher mean score than their non-married counterparts, the reverse obtained among the older (75+) respondents.

A different approach was tried at the second interview, when all respondents who reported a consultation with their GP in the preceding six months were asked, in relation to the most recent consultation, whether anyone had suggested that they should make the consultation, and whether they would still have gone even if no such suggestion had been made. The results, though based on small numbers, are interesting. Among respondents under the age of 75, one-third of those who had seen their GPs in the preceding six months said that somebody had suggested the visit. This proportion was almost identical in each of the three marital groups. Among those aged 75 and above, three-fifths said that somebody had suggested the visit. Again, no variations occurred among the marital groups. It seems, therefore, that older people are more open to the suggestion that they should visit the doctor than are younger people, but that no differences exist in this respect between married and non-married people.

Those who make the suggestion that an elderly person should visit a GP are perceived to have some influence. Of the 28 consultations that were reported at the second interview to have been at the suggestion of another person, 11 (39%) were thought unlikely to have occurred unless the suggestion had been made. However, the people who actually made the suggestions were different for married and non-married people. The married respondents received suggestions from their spouses and from the doctor himself; widowed respondents were influenced more heavily by their daughters and by non-relatives; and single and divorced people received suggestions mainly from their relatives.

The same set of questions was repeated in the sixth interview, with remarkably similar results. The major difference was the greater significance of the doctor in initiating or suggesting the consultation, and the major reason for this appeared to be the greater number of routine domiciliary visits at the sixth interview than at the second interview.

A third approach to the measurement of illness behaviour was through questioning in the fourth and sixth interviews about medicines that were

taken regularly or on repeat prescriptions. The collection of repeat prescriptions may account in part for the generally higher GP consultation rates among non-married than married people, and the use of regular medication may indicate a general disposition towards symptoms of ill health that emphasises the importance of treatment. The results, set out in Table 24, do not show any major variations between the marital groups. At both interviews, the reported consumption of medicines on a regular basis or on repeat prescriptions among respondents under the age of 75 was highest among the single and divorced and lowest among the widowed. Among those aged 75 and above the results were inconsistent between the two interviews, although they show the anticipated pattern of a higher reported rate of consumption among the older than among the younger respondents. Direct comparisons cannot be made with Dunnell and Cartwright's (1972) national survey of medicine-taking, but it appears that relatively more people in the present study said they were on repeat prescriptions than did so in the national survey.

The use of health and social services: some illustrative case studies

Four case studies are used to illustrate this section: two of respondents whose use of medical care services increased following the deaths of their spouses, and two of married men who made fairly extensive use of these services throughout the study.

Mr. and Mrs. Newman were both 69 at the start of the study. They had been married for 47 years, and had moved to their present flat from another part of the county a month or two before the first interview when Mr. Newman retired from his job at a flour mill. The move had been made on account of Mr. Newman's health, for they had formerly been living on the top-floor of a high-rise block of flats, but they were both full of regrets about it. Mrs. Newman, in particular, did not like the flat, feeling constricted with neither a garden nor a balcony. She regretted that they had left so many friends and relatives behind, and felt that she had been dogged by bad luck since the move. Mr. and Mrs. Newman had two sons, both of whom were married with families of their own. The elder son lived near to their former home. Mrs. Newman said at the first interview that they heard from him each week and saw him and his family two or three times a year. At the second interview, however, when Mr. Newman's health had deteriorated quite seriously, Mrs. Newman said that she was now seeing her son once a month and her daughter-in-law was visiting every fortnight. But, as Mrs. Newman pointed out, 'he couldn't be on the spot if anything happened

suddenly'. The younger son lived about five miles away and saw his parents every week, but he seems to have been of less help to Mrs. Newman than his brother, even when Mr. Newman died. Three other relatives were mentioned with whom periodic contact was made: a brother-in-law aged 77, living some twenty miles away; a sister of Mrs. Newman, recently widowed, living near the Newmans' former home; and a brother of 58 living in the Midlands. They each suffered from poor health, and were not thought likely to be of much help to Mr. and Mrs. Newman. The neighbours were described as being 'sociable' and 'awfully nice'. Mrs. Newman felt they would help each other if anyone was in trouble, particularly in sharing the telephone. Later in the survey, after her husband had died, and again after she came out of hospital, Mrs. Newman spoke appreciatively of the help and attention they had shown.

Mrs. Newman described her health at the first interview as 'fair'. She said that she suffered from arthritis and nerves. She had difficulty bathing, and relied on her husband to help. She was nervous of over-balancing and was unable to sit down. 'The bath is a bug-bear. Most elderly people are the same. The walls are not strong enough for a pulley. We should have a shower. I have a mat but it slips. It's dangerous.' At the second interview Mrs. Newman described herself as being in poor health. She was tired out with worry about her husband, and she felt that she had got worse during the previous six months. 'I'm tired out. Can't sleep when my husband can't sleep. It's up and down, the worry over my husband.' Mrs. Newman also said at this second interview that her head was sometimes funny and painful and that, because of arthritis, she had more difficulty than usual in getting around the house. But in spite of her ailments, Mrs. Newman made almost no demands at this time on the health services. She hadn't seen her GP on her own behalf for at least 18 months prior to the second interview, although she was receiving repeat prescriptions for pain-killers for her arthritis. She had had no contact with a hospital, a nurse, or any of the social services. She seemed to summarise her philosophy in answer to the question whether she thought it was best to go to a doctor quickly when ill: 'It depends, you know. It's nice to be independent. It's bad enough when you really need help and have to ask for it.'

Mrs. Newman was widowed shortly after the second interview. Mr. Newman had been reported at the first interview never to have recovered fully from an operation for a stomach ulcer several years earlier, and he was also said to be troubled by his prostate gland. At the second interview Mrs. Newman said that he had terminal cancer, and he died shortly after the interview.

Mrs. Newman spoke of the effects of widowhood at the next interview. 'At first my mind went blank. I had to have tablets. It's bound to affect you. No, I'm not on top of the world. I get depressed. I don't want to mix, but I feel lonely ... After what I've been through, losing him, I have this depression.' Mrs. Newman also reported difficulty in sleeping, a problem that persisted through to the end of the study. The effect of Mr. Newman's death was also felt in other ways. Without her husband's help, bathing was much more of a problem. 'I can't sit in the bath now I've no husband to help. I have to kneel.' And the loss was further reflected in her replies to the question of how she would cope if illness confined her to bed for a week. At the first interview she had said, 'I've got a good husband. We'd manage all right as long as he kept well.' But later she said: 'I don't know about that. I have a friend up at the top if she thought I needed anything. The neighbours are all pretty good ... I don't know. I don't think my daughter-in-law would be any good. She's got her own home and job.' Mrs. Newman closed this third interview by saying that she didn't know what would happen to her in the future.

The fourth interview found Mrs. Newman in a state of considerable tiredness. She had been busy visiting her sister in hospital following a stroke, and she had given a good deal of help to a friend whose home had been flooded. She said: 'I feel rough just now; all this extra work. I felt ill when I came from my sister's.' Mrs. Newman felt she was getting over the loss of her husband, but she was still lonely, particularly at weekends. She was a little afraid of going out by herself, and was concerned about the safety of old people on the streets with 'all these muggings and assaults'. Mrs. Newman spoke more insistently at this interview about her desire to move back to her former area of residence, partly to be back with old friends but partly also to be nearer her sister. 'I think I'll try and get back up home. It would save me a lot of tearing about if I could get up near my sister. She lost her husband six months before me and she went downhill. If she knew I was near, she'd be better.' At this interview Mrs. Newman recounted the difficulty she was experiencing with arthritis, and spoke again about the pains in her head, which she said was caused by blood pressure. She had seen her doctor several times since her husband had died, first for something to help her to cope with the shock of her bereavement, and latterly for a growth that had appeared on her neck. The doctor had recommended that she should have the growth removed in hospital, but as Mrs. Newman put it, she was waiting both for the time and the courage to have it done.

The operation was in fact carried out a few weeks after the fourth interview. She had first seen the specialist in the out-patient clinic and had then been in hospital for a week. Mrs. Newman spoke at some length about the other patients in the ward with skin cancer. She had had a lot of help from neighbours on returning home from the hospital, and now felt 'quite well'. She spoke of continual tiredness and inability to sleep, and she had seen her GP on several occasions. She was regularly taking sleeping pills and painkillers for the arthritis that was becoming increasingly troublesome and restricting. But the interviewer noted that Mrs. Newman remained cheerful and friendly, and discussed her problems in a very practical manner. She said again that she was hoping soon to move back to her former home area, and in fact she had already moved when the interviewer called for the final interview.

Mrs. Newman's story, like that of Mrs. Clarke (page 25), illustrates some of the ingredients that go into the problems caused by widowhood. Like Mrs. Clarke, Mrs. Newman and her husband had moved to a new part of the county shortly before he died. They had a son living nearby, but otherwise they were faced with an unknown (and in some senses hostile) community. In fact, Mrs. Newman seems to have integrated into her neighbourhood rather better than Mrs. Clarke, and was certainly better supported by her neighbours when she was in need of help. The bereavement itself gave rise to the familiar symptoms of depression, loneliness and insomnia, but Mrs. Newman seemed to respond positively to them by busying herself with her sister's and friend's needs. Like Mrs. Clarke, her physical health did not deteriorate in any dramatic way. Nevertheless, her use of the health service increased noticeably during the remainder of the study following her bereavement. From having no face-to-face contact with her GP or hospital doctor during the 18 months prior to her bereavement, Mrs. Newman had several GP consultations, one out-patient consultation and one spell of in-patient care during the 18 months following her loss. Part of this does seem to be directly associated with the death of her husband, particularly the consultations with her GP that resulted in the prescription of tranquillisers and barbiturates. But Mrs. Newman's admission to hospital does not appear to be linked so intimately to her experience of widowhood. The evidence from the interviews is insufficiently clear on this matter. It is not known for how long Mrs. Newman had had the growth before having it removed. It is possible that, as with Mrs. Clarke, the stress of widowhood intensified her awareness of the problem and that her contacts with her GP provided the means by which she was referred to the specialist out-patient clinic. Alternatively, the growth itself may have been caused or

exacerbated by the shock of her husband's death. Whatever the real explanation, Mrs. Newman's use of medical care services before and after her bereavement seems to fit the classical pattern.

Mr. Tompkins was 76 at the outset of the study, and his wife was 74. Prior to his retirement Mr. Tompkins had been a tradesman in the building industry. The Tompkins' had been married for almost 50 years, and had been living in their present bungalow for 5 years. The location of the bungalow was a source of grievance to Mr. Tompkins throughout the study. They had bought it when it was being built on the understanding that shops would be constructed nearby, but these had never materialised and the Tompkins' found themselves isolated and trapped, unable to afford frequent bus trips into the centre of their town. Throughout the dunation of the study Mr. Tompkins continually complained about rising fares, crowded buses in the holiday season and the closure of small shops away from the centre of town. The opening of new, large supermarkets offered no consolation, for Mr. Tompkins found them confusing, particularly the constant relocation of goods on the shelves, making it difficult for elderly people with failing eyesight to find what they wanted. A local chemist, grocer and doctor would have done much to improve the quality of their lives; as it was, nobody delivered and Mr. Tompkins had difficulty in carrying heavy loads of shopping home.

The Tompkins' had one son, aged 41, living with his own family in another part of the county. They saw him a few times each year, although they kept in regular contact by telephone. In the early stages of the study the Tompkins' did not seem to receive much help or support from him, but as time went by Mr. Tompkins felt it would be good for them to move nearer to him. At the fourth interview, for example, Mr. Tompkins said, 'We'd like to be nearer to Peter, but we're stuck down here and won't be able to get away. He lives in an expensive area, and we wouldn't get sufficient for this bungalow to pay for a place there.' Later still, following Mrs. Tompkins' death, the son proved to be a very considerable support to his widowed father. The only other relatives with whom the Tompkins' were in contact were both elderly: a brother-in-law in his seventies living in London and a sister, also in her seventies, living in Suffolk. Both were chronically ill and were reported at the first interview as unlikely to be of any help to Mr. or Mrs. Tompkins. The only subsequent mention that was made of them was in the fourth interview, when Mr. Tompkins said in reply to the question of how he

would cope if illness confined him to bed for a week: 'A poser. There's no-one to come in and stay. The brother-in-law's wife might come, but she's as old as we are and not very well.' Mr. Tompkins described his neighbours as 'mostly elderly or ill'. He said at the first interview: 'We never see a soul all day. There's an elderly couple next door, but they're both iller than us. Next door this way is a young couple, 40 to 50, they go to work.' And at the third interview Mr. Tompkins said: 'The people next door are out all day and the bungalow next-door-but-one is up for sale. We don't go out anywhere except to the son once in six months.' As will be seen, however, Mr. Tompkins' relationships with his neighbours appeared to change considerably after his wife's death.

For much of the duration of the study, then, the Tompkins' appeared to be lonely, unhappy and with little local support. Like other couples in similar circumstances in the study, they were heavily dependent upon each other. Mr. Tompkins particularly seemed to be reliant upon his wife. He said that she didn't like him to be left alone or to go out of the house by himself, and in reply to the question of how he would cope if illness confined him to bed for a week he said at the first interview: 'I should have to rely on my wife unless they could send a nurse. She can't carry heavy loads. She wouldn't be able to lift anything. If I had a blackout she has to leave me lying there.' The same question at the second interview produced the response: 'I'd have to get up myself if my wife wasn't here. If my wife couldn't, we would have to have help. Things are difficult as regards toilet facilities. I'd have to have help. The son would arrange something. We could go up there.'

Mr. Tompkins described his health at the first interview as 'constitutionally good', although he had suffered for 30 years from petit mal and 'couldn't predict from one minute to the next when I'll have a turn'. He took one tablet each day for the condition, and was prescribed 50 tablets at a time. He saw his GP on every second visit to the surgery to collect the prescription, giving rise on average to two consultations in each six-month period. Mr. Tompkins also suffered from psoriasis, and collected prescriptions for a cream whenever he visited the surgery. Apart from these two conditions Mr. Tompkins mentioned no other specific health problems. He talked about his increasing debility as the study progressed and the problems he had in carrying the shopping home, but he did not mention any specific disabilities in moving about or locking after himself. Until the final interview he had no contact during the study period with any health or social services apart from his family doctor, although he was favourably disposed

towards the medical profession. He got on very well with his doctor, and in reply to the question of whether he thought it best to see a doctor quickly if ill, he replied: 'Take a doctor's advice immediately. I think a doctor has a lot more knowledge than you have.'

Mrs. Tompkins was not as well as her husband. She suffered from a congenital heart defect and from arthritis in her legs. She was unable to cope with sustained activity and could not walk very far; but she said at the first interview that 'I can manage as long as I don't overdo things.' Mrs. Tompkins died between the fifth and sixth interviews, and at the final interview Mr. Tompkins said that soon after her death he had had a more severe attack of petit mal than usual and had been admitted to hospital for a week. He had also seen his GP during the previous six months on many more occasions than in the preceding two-and-a-half years. However, Mr. Tompkins did not attribute his attack to his bereavement, and in fact he had reported at the fifth interview (before his wife died) that he had also blacked out in an attack at home, and had had to remain on the floor until regaining consciousness because of his wife's inability to lift him. The obvious possibility exists that, in view of his recent bereavement, the decision to admit him to hospital was taken largely on these grounds, but no evidence exists about this. At all events, Mr. Tompkins was clear at the final interview that he had regained his usual state of health and had 'plenty of strength and will-power to carry on.' Indeed, he appeared in many ways to be better than he had been before his wife's death. He explained that, because of her growing weakness, he had had to do more and more things for her, and he indicated that his wife's concern about his own health had prevented him from doing things that he had wished to do. At this final interview, for example, he said that he had joined a number of local organisations, and that he was now seeing much more of his friends and neighbours. In contrast to the first interview, when he had not anticipated any help from them at all, Mr. Tompkins now said that he knew at least three neighbours upon whose help he could call, and that he saw them all at least once a week.

Mr. Tompkins' son had also been a considerable support to him, visiting him regularly each week and helping him to cope with the legal and administrative consequences of Mrs. Tompkins' death. Mr. Tompkins said that he was toying with the idea of moving nearer to his son, but he was anxious to keep his own independence. The most important difficulty that Mr. Tompkins mentioned now was cooking his own meals, for as he put it, 'I'm not so used to it as the wife.' Apart from this, he gave every impression not only of having got over his wife's death, but even of having gained some benefit from it.

He said: 'I've not had an easy retirement because of my wife's heart trouble.' As with Mrs. Newman, then, Mr. Tompkins appeared superficially to conform to the classical pattern of an increased use of medical care services following widowhood, but, also like Mrs. Newman, the causal link between the two events is unclear, and Mr. Tompkins' state of affairs at the conclusion of the study did not obviously identify him as a potential future high user.

Mr. Winter was 66 at the outset of the study and his wife was 70. They lived in a large old house on a main road, some three-quarters of a mile from the main shops but with a small general store nearby. Mr. Winter had been invalided out of the army when he was 50, and had since had business interests in marine engineering. At the time of the first interview he was in the process of winding up these interests, and this caused a number of problems during the three years of the study. Looking back at the end of the study, Mr. Winter said that getting out of the business had been the best thing to happen to him during the three years because, as he put it, 'I don't have to deal with modern crooks any longer.' He felt that he had been treated badly by the firm, particularly in a financial way through a reduction in his pension.

Mr. Winter was forthright in expressing his general views to the interviewer: 'We are independent people, we don't believe in not helping ourselves as long as we can.' He and his wife were very dependent upon one another, but Mrs. Winter's health deteriorated as the study went on, and Mr. Winter was less sure how much help she would be in an emergency. This change was reflected in his replies to the question of how he would cope if illness confined him to bed for a week. At the first interview he had confidently identified his wife as his major source of care, but at the fourth interview he talked about the need for the services of a district nurse and home help, and at the final interview he said: 'We would have to call in the nurse and apply for a home help. She (Mrs. Winter) would have done it, but I wouldn't like her to now.' On several occasions in the latter part of the study Mr. Winter expressed the opinion that his wife should have more help in the house, but the only outside help that the Winters had during the whole of the three years was that of a part-time gardener. The sources of Mrs. Winter's health problems were the partial loss of sight in one eye (which eventually forced her to give up driving), high blood pressure, claustrophobia and loss of confidence. The latter troubles were attributed to a head injury sustained shortly after their marriage 40 years earlier.

The Winters had one son and one daughter, both in their thirties, living with their families some 40 miles away. Both children were seen regularly, and they were regarded by Mr. Winter as sources of help to which he would turn if necessary. The daughter, in particular, had been very helpful when Mrs. Winter had had a spell in hospital towards the end of the study, but Mr. Winter said that his son never seemed to have time to do anything. The Winters had discussed the possibility of moving to a smaller home nearer their daughter, but, as he put it, they did not want to impose on her. Mr. Winter also mentioned four other relatives with whom they were in regular contact: three married brothers living in the West Country and a married cousin of 53 in Hampshire. Other relatives visited spasmodically. The Winters were very friendly with many of their neighbours, and Mr. Winter often spoke of odd jobs that they did for each other. Three or four neighbours were mentioned by name who had been very helpful to them, and Mr. Winter frequently said that it would be a wrench if they ever had to move. The proprietor of the nearby general store had also been good to them.

Mr. Winter described his health at the first interview as 'poor'. He had had a heart attack four months earlier whilst on holiday, and had been brought home by his son. He had been confined to his room upstairs for several weeks and at the time of the first interview he was able to negotiate the stairs once a day. Throughout the entire duration of the study Mr. Winter was in regular contact with his GP and the hospital specialist about his heart, and he was taking tablets for the condition. He continually complained about the restrictions which the condition imposed upon his mobility, and he particularly regretted the fact that he had had to give up driving. However, as he said, 'I try not to let it interfere, but people try to keep me down.' He felt at the end of the study that there had been a gradual improvement in his condition during the previous three years. Mr. Winter also reported a mild form of epilepsy from which he had suffered since the war. It took the form of periodic blackouts, but with regular medication he felt they were 'more or less controlled'. Mr. Winter also said at the first interview that he was having injections from a nurse for muscular rheumatism, although he did not mention any difficulties in looking after himself except for the exhaustion caused by shaving in the weeks following his heart attack.

Between the first and second interviews Mr. Winter was admitted to hospital for a prostatectomy operation. He spent eight days in the district general hospital - well below the average length of stay for this operation. He said he was feeling better as a result of the operation, and also because he was beginning to shed some of his business responsibilities. Nevertheless,

he rated his health only as 'fair'. He was still finding the stairs difficult to manage on some days, and he complained about the difficulty of getting transport, particularly to the hospital. 'If I want to go to hospital I have to get someone to drive me. I could do with the ambulance calling.' The complaint was repeated throughout the study. The third interview also found Mr. Winter recently home from hospital. As a result of a fall a lump had appeared on his hand - he said it was 'something to do with the rheumatoid' - and he spent four days in the local hospital. He mentioned again that he was suffering from rheumatoid arthritis, epilepsy, and a 'dicky heart'. In connection with the latter, Mr. Winter was regularly visiting an out-patient clinic as a private patient, and he had had an extra bannister fitted to the stairs. He was finding it easier to move about indoors, but more difficult out of doors. 'When the weather is worse I get more puffed.' Mr. Winter also reiterated the difficulties he was encountering with transport. 'I get an ambulance driver to drive me when he's off duty, he helps with the driving in his spare time, (but) he can't always turn up. It's difficult to go and see my daughter sometimes.'

The remaining three interviews saw the Winters continuing (as they put it) to 'struggle on'. Mr. Winter remained in regular contact with his GP and the hospital out-patient department, though he had no further inpatient admissions during this time. He continued to complain about the transport problem, but a new neighbour was mentioned at the fifth interview who was apparently giving them regular lifts in his car. Mrs. Winter had by this time given up driving, and she seemed to be becoming increasingly frail and incapacitated. At the sixth interview Mr. Winter recounted how she had recently fallen and fractured her arm, necessitating admission to hospital, but this small crisis had merely reinforced the support that the Winters received from their family and neighbours. On that occasion their daughter had visited for a few days to cope with the housework and cooking, and several neighbours had helped in different ways, including taking Mr. Winter to the hospital by car to visit his wife. Mr. Winter summed up their outlook at the close of the study: 'We don't look forward too much. We live from day to day and week to week. We keep everything up to date so we won't be caught on the hop if we suddenly can't do things. ... We manage ... We are going to stick here.'

The final case is that of Mr. Harding. He was 77 at the beginning of the study, and his wife was 55. It was his second marriage, and they had been married for 32 years. They lived in the ground-floor flat of a largish, semi-detached house situated on the sea-front some three-quarters of a mile from the shops. The house was comfortable and well-furnished. Mr. Harding was a retired Post Office engineer, and his wife worked full-time for the gas board. She was described by the interviewer as a competent and cheerful woman, in good health apart from a touch of arthritis. Mr. Harding said that she was 'a greater helper of the elderly and enjoys it'. The Hardings had a married son of 28, living in Canada, and a married daughter of 30 living some 15 miles away. The daughter was not mentioned at all in the interviews, although Mr. Harding said that they saw her about once a week. Mr. Harding had several siblings and cousins whom he saw regularly. Two of them lived very close by, and the rest lived elsewhere in Kent, but they were all of a similar age to Mr. Harding, and for various reasons were not able to offer much practical help. Mr. Harding thought that he and his wife visited their relatives to help them more than vice versa. They made a weekly visit to an elderly cousin in an old people's home in the next town. The neighbours near to Mr. and Mrs. Harding were also elderly; there was a man of 82 next door and one of 83 across the road. Mr. Harding said: 'We look after one another. If he doesn't see me, he comes to find out how I am. We have a code round here.'

Mr. Harding described his health throughout the study as 'poor'. He had lost the use of one eye during the first war, and a cataract was developing in the second. By the end of the study he was almost blind. He was partially deaf, and just before the first interview had visited an out-patient clinic for a hearing test. He also suffered from high blood pressure, which took him regularly to his GP for check-ups and tablets, and which caused increasing disability as time went by. Mr. Harding had had a heart attack thirty years earlier, and he had also had a number of abdominal operations. As he put it, 'I've had my insides out three times. Gall-bladder and that!' Four months prior to the first interview Mr. Harding developed pneumonia; he was also 'bringing up blood', and he was admitted to hospital for eight days. At the interview he said that it was difficult for him to get about out of doors. 'I mustn't go far on my own. I walk in the garden when it's nice. I mustn't go upstairs much. I don't have to here, we have the bottom flat.' Mr. Harding also reported at the first interview that he had difficulty putting on shoes and socks, and also doing up buttons and zips. 'I can't stoop because of blood-pressure. I don't have laces in my shoes.'

Two weeks after that interview Mr. Harding was again admitted to hospital with pneumonia and haemorrhage. He was in for 10 days, and 'now I have to have pills which upset me.' He felt his health had deteriorated during the previous six months: he was very breathless and also aware that his memory was fading. He said: 'I can't do nothing now. Can't stoop. It's slowed me up.' He reported difficulty with bathing and had to be careful getting into and out of bed. Mr. Harding realised his extreme good fortune in having a younger wife to look after him. Although Mrs. Harding was in full-time work she telephoned home two or three times a day to see if her husband was all right, and she came home for meals. If necessary, she said, she would get 'special leave' to look after him. Mr. Harding felt that, without his wife, he would need outside help with things that he could not do for himself, such as washing his feet, cleaning, cooking and shopping. He was also totally dependent on his wife to get out in their car.

The third interview found Mr. Harding in 'fair' health. He complained about his high blood pressure, which was preventing him from doing very much at all. 'I have to be careful. My wife takes me in the car. I don't get out much myself. If I turned quick I'd fall over.' At the fourth interview Mr. Harding, now 79, again felt that he was less well than previously. 'It's old age. I'm wearing out.' Several things had become more difficult for him during the previous six months, including getting into and out of bed, dressing, and doing odd jobs around the house and garden. He was now increasingly dependent upon his wife for help in looking after himself, in getting to the doctor's surgery, and in taking his medication correctly. 'My wife gives me the pills now as I don't think so quick and I don't know what I have had.' Yet in spite of his growing incapacity Mr. Harding was determined not to vegetate. He said that he kept moving to exercise his legs, even when it was easier to sit still, and he and his wife still visited their elderly cousi each week, and they fetched an elderly widow each week from the neighbouring town 'to have her feet done'.

The final two interviews found Mr. Harding, now aged 80, in a stable condition. He could do virtually nothing for himself and totally dependent upon his wife, who continued to provide all the care that was needed. Most activities had by now become more difficult for Mr. Harding, and he felt vulnerable during the day with his wife out at work. He continued to see his doctor at least once a month, as he had done throughout the entire study, and he said that he was taking drugs regularly for blood pressure. He was realistic about his condition: 'I don't let it worry me. We all have to go

sometime. It's a thing we can't pass. Never worries me meeting death, I've seen so much of it. If you can help anyone on the way, hold their hand. I don't turn away from it. I don't want it, but I'm not afraid of it.'

SUMMARY AND CONCLUSIONS

Marital status and hospital use

This report has been concerned with the phenomenon of the differential use made by married and non-married people of a range of health and social services. The phenomenon is international and long-standing, particularly in the use of hospital services. The more intensive use of psychiatric and geriatric hospitals by non-married than by married people probably accords quite well with common-sense views about how the world works, but it is less obvious that equally large variations should also occur in the use of other hospitals. The evidence is quite dramatic. The 1973 Report of the Hospital In-Patient Enquiry, for example, showed that non-married patients in England and Wales in that year used some 15,600 more beds each day than married patients by virtue of their longer average periods of stay in hospital, and some 8,200 more beds because of their higher admission rates. These differences, which actually appear to be increasing each year, take account of the different age and sex structures of married and non-married people. Moreover, they seem to hold good in all types of non-psychiatric hospitals, and they appear to characterise each of the separate categories of non-marriage (singlehood, widowhood, divorce and separation).

The explanation for these striking and consistent variations in the use of hospitals between married and non-married people is complex and manysided. Some clues are to be found in the literature, but they are fragmentary and often raise more questions than they answer. One important component seems to lie in the differential experience of ill-health between the different marital groups. Non-married people make more use of hospitals than married people partly because they suffer more of the kinds of conditions that are typically treated through in-patient care. For example, age- and sex-specific mortality rates are higher among non-married than among married people for all major causes of death, and the prevalence of self-reported chronic and acute illness is greater among widowed, divorced and separated people (though not among single people). Various hypotheses have been advanced to account for the association between marital status and ill-health, particularly psychiatric ill-health. The consequences of moving from one marital state to another (especially from marriage to widowhood) appear to constitute a potent risk factor, and the life-styles and living conditions that are typically associated with particular marital states may also have an important effect.

There is little evidence in the literature about the contribution made to the different rates of hospital use of married and non-married people by their variations in illness behaviour. General practitioner consultation rates are generally higher among widowed, divorced and separated people than among married people, but almost all of these 'excess' rates can probably be explained in terms of the greater amount of chronic and acute illness from which they suffer. After allowing for self-reported illness, it is only widowers who seem to consult their GPs more frequently than the other marital groups. Single people appear to have the lowest consultation rates of all, after making allowance for self-reported illnesses.

There is little evidence that the behaviour of GPs in referring patients for specialist care or opinion discriminates in favour of the non-married, but there is extensive evidence in the literature that social factors which influence the decisions of hospital staff about the admission and discharge of patients tend to increase the likelihood of non-married patients being admitted more frequently than married patients and staying for longer periods of time. One such factor appears to be the composition of the patients' households: single and widowed patients are more likely to be living alone than married patients, and this appears to influence the choice of in-patient care as the appropriate location for treatment. Results from one large regional study suggest that single patients may be more likely than married patients to have treatment decisions made about them on these grounds, perhaps reflecting the greater amount of family support that is generally available to widowed than to single people. The apparent tendency on the part of hospital staff to be more influenced by social considerations in deciding the management of non-married than of married patients is reflected in the levels of clinical need displayed by each group. Point-prevalence surveys suggest that proportionately more widowed and (particularly) single patients are likely to be judged by medical staff as needing sub-acute care, or even non-hospital care, than married patients; but it is not clear how the clinical thresholds of each group of patients differ at the time of admission and discharge.

The literature, then, contains a number of clues to the persistent variations in hospital use between the married and the non-married, and suggests the possibility of different explanations for widowed and single people. In general terms, the bulk of evidence is consistent with the hypothesis that the enhanced utilisation rates of the widowed reflect predominantly their less favourable health status, whilst the higher rates of the single are linked more to their social and domiciliary arrangements. However, much still remains imperfectly understood, and the case for further investigation of the

phenomenon lies partly in the intrinsic merit of enhancing human understanding and partly in the implications which such understanding might hold for those whose policy actions are affected by the phenomenon. Projected changes in the marital structure of the population are an obvious example of this. One projection forecasts an increase in the number of non-married people over the age of 65 of 332,000 between 1976 and 1991, and if the established pattern of hospital utilisation by married and non-married people continues in the future, these projected changes in the marital structure of the population may be expected to intensify the demand on resources in addition to the pressures resulting from an increase in the sheer number of elderly people.

Studies in the Health Services Research Unit of marital status and hospital use

Proposals were accepted by the DHSS in 1974 for two studies to explore different aspects of the phenomenon among people aged 65 and above. The first study took the form of a utilisation review of cohorts of elderly patients passing through acute in-patient medical and surgical care at a district general hospital. Judgements were made by the hospital medical staff at various stages of each patient's progress through the hospital of the presence of non-medical factors influencing decisions about the management of that patient, and further information about the patients' home circumstances was obtained from follow-up interviews carried out within two or three weeks of their leaving hospital. The study highlighted the potential importance of convalescent facilities in coping with the post-discharge needs of non-married patients (particularly those receiving surgical treatment), and the consequent need to take account of transfers between hospitals in comparing lengths of stay between different geographical areas or different groups of patients. It also suggested that the characteristic association between marital status and hospitalisation may be less marked in areas with a taut supply of beds in relation to the demand for them, for in such circumstances the use of hospital resources for predominantly social care is minimised, and this tends to diminish the marital variations. In this particular study a low proportion of the bed-days was judged to be used for social or administrative reasons, and the differences in admission rates and mean lengths of stay between the married and non-married patients were correspondingly reduced in comparison with the national picture.

The second study, which has been the subject of this report, was a prospective case study of a group of people, aged 65 and above, living in private households in the community. The basic aim of the study was the

descriptive examination, over a period of time, of the social and medical wants and resources of elderly people, paying particular attention to the differences between the married, the widowed and the single. It was hoped that, by collecting detailed descriptive information over a number of years, a fuller picture might emerge of the complex processes that culminate in the differential hospital admission rates of people of differing marital status. A systematic sample of 200 elderly people was drawn from the lists of the Family Practitioner Committee, and of these 35 were ineligible for various reasons for inclusion in the study. Of the remainder, 126 (76%) enrolled in the study and completed the first interview. The study continued for three years, with respondents being interviewed at six-monthly interviews; but for reasons of death, removal, permanent hospitalisation or refusal, not all respondents remained in the study for its full duration. Of the 126 who were enrolled in the study, 88 completed all six interviews and the remaining 38 completed varying numbers of interviews between one and five. One interviewer, who was trained specifically for the study, conducted the whole of the interviewing throughout the main phase of the study.

An evaluation of the study

The study had certain strengths and weaknesses, successes and failures. On the positive side, the detailed interviews with respondents over a period of three years undoubtedly enhanced the depth of understanding of their situations, and probably also improved the validity of the information collected. The eliciting of important items of information was not dependent upon single questions posed at solitary moments in time; rather, it was possible to use the replies to several questions, proferred over a period of time, to construct an impression of the nature and significance to the respondent of important needs, events and episodes. It is hoped that the narrative form used to present much of the data in this report has in some measure succeeded in endowing the material with a dynamic quality and an impression of veracity that is less easily achieved with cross-sectional survey techniques.

The longitudinal nature of the study also permitted distinctions to be drawn between descriptions of the problems and concerns faced by the respondents and the ways in which they were resolved. In a cross-sectional survey, respondents may be invited to talk either about problems which they have experienced in the past (the recollection and reporting of which may be coloured by the ways in which those problems have been resolved), or about problems which they are currently experiencing (the resolution of which

remains an inknown quantity). In this study, respondents frequently spoke at one interview about particular needs or difficulties in their lives, ignorant of how they would be resolved, and at subsequent interviews of how those difficulties had actually worked out. This is not just an academic point about methods; it also illustrates the way in which elderly people often cope with events in their lives which seem to them to pose difficulties or threats. The case studies in this report contain several illustrations of people who concluded an interview by saying, in effect, that they did not know how they would manage in the future. Yet in most cases ways of coping emerged which were unanticipated at the earlier interview. There seems, in other words, to be a gap between the expectations and preparations which some elderly people have about the future and the reality of what transpires. The case of Mr. Porter (pages 38-42) illustrates this. In the early interviews Mr. Porter, who was almost entirely unsupported, was very distressed when thinking about the future, and he had no idea of what would happen if his disabilities increased. In fact, he did become increasingly disabled as the study progressed, but at the same time a variety of formal and informal services were mobilised that enabled him to keep a hold (albeit tenuous) on independence in his own home. It would be difficult to grasp such dislocations between expectations and outcomes from cross-sectional surveys.

Another strength of the study lay in the emphasis it placed upon the construction of descriptive case studies, for what emerged strongly from the case material was the uniqueness of each person's situation. Formal classifications of events according to the marital status or household and family structures of those who experience them are valuable in delineating the contours of the processes under study, but they are limited in their capacity to take account of the complexity and variety of factors shaping those events. The case study approach, by regarding each individual as unique, is better suited to the task of teasing out those factors, or combinations of factors, that shape the distinctive fortunes of people in the same formal classification groups. It is hoped that this, too, has come through from the case studies. Respondents of similar ages and marital status, living in similar household types and with similar family and neighbourhood connections, nevertheless differed in their capacity to cope with their needs, often by virtue of distinctive or idiosyncratic features that happened to be present in one person's life but not another's. It is, of course, no necessary virtue of the case study approach that it can detect such nuances and idiosyncracies, for much depends upon the topics towards which the discussion is steered in the interviews and the sensitivity and diligence of the interviewer in recording the answers to semi-structured as well as structured questions.

Nevertheless, the case study approach is more likely to disentangle the distinctive skeins of factors in each individual's life than is the more quantitative approach of formal interview surveys.

Lastly, on the positive side of the equation, it may be noted that, although the study did not aim principally to present an account of a representative group of elderly epople in the community, the sample at the outset of the study was reasonably typical, in terms of age, sex and marital structure, of the population from which it was drawn; and many characteristics of the sample were astonishingly similar to those found in other studies of elderly people, particularly a recent national study among a large number of elderly people in England and Wales. Thus, although the study did not seek specifically to produce statements that could be generalised to the elderly population as a whole, it is possible that the experiences of this particular group of elderly people may not be too dissimilar to those of others of the same age.

On the negative side of the equation, there are aspects of the study that are weak and inadequate. Some of the weaknesses relate to the particular methods used in the study, others to the relationship between aims and achievements. With respect to the methods of the study, at least three deficiencies can be identified. First, the data in the study derived exclusively from interviews with the respondents. It had been hoped originally to supplement some of the interview data with material drawn from other sources (such as hospital records and interviews with GPs when respondents went into hospital), and to check the consistency of certain reported events against other records; but in fact the researcher was not able to sustain the necessary co-operation on a comprehensive scale for very long, and the partial data obtained in this way have been excluded from this report. The total reliance upon the interview data therefore means that generous assumptions have implicitly been made not only about the accuracy of the reporting of factual occurrences (such as GP consultations or the receipt of domiciliary services), but also about the reasonableness of the accounts given by respondents of the events in their lives during the period of the study. The implication behind the presentation of the case studies in this report is that the stories told by the respondents were reasonably accurate accounts of how things 'really were' - or at least that their accounts would be endorsed in large measure by others involved in them. In fact, perceptions of how things 'really are' are subjective and ephemeral, and it is possible that accounts of the same events given by other people (GPs, neighbours, relatives, etc.) would differ substantially from those given by the respondents. No account has been taken of this in presenting the case studies.

A second problem relating to the methods used in the study derives from its longitudinal nature. Though having certain strengths and advantages, a longitudinal design gives rise to various difficulties in the analysis of data, and the actual analyses in this report have not been entirely satisfactory. The basic problem is that of coping with respondents who dropped out of the study before its allotted duration. Several different ways have been used. Some analyses have been restricted to those respondents who completed all the interviews, others have presented the data for the first interview only, and others have aggregated the data across the total number of interviews completed by each respondent. The choice of technique was determined pragmatically by the needs of the situation, but the result is often unsatisfactory.

A third problem relating to the methods used in the study concerns the selection and recording of information in the interviews. The interviewer in this particular study worked conscientiously and well, but any form of interviewing that deviates from closed questioning and restricted probing is open to the criticism of bias towards respondents who speak freely in a semi-structured situation and towards those items of information that the interviewer regards as important and worth recording. Likewise, in constructing the case histories from the interview schedules, further bias and interpretation has been introduced by the author in deciding what material to include and how to arrange it into a coherent story. In short, the case studies presented in this report are the outcome of various selective and interpretative processes that may further distort the 'truth'. Such bias is an inevitable feature of social research, but the risk of it is considerably enhanced in a study of the kind reported here. As with the other methodological shortcomings noted above, each reader must decide for himself how far they devalue the results.

In addition to these criticism about methods, a further question-mark hangs over the relationship between aims and achievements. The basic objective of the study was an exploration, through the use of case studies, of the nature of the link between marital status and hospital use, particularly the salience of household structure and family and neighbourhood support systems as intervening variables. The fulfilment of this objective has been impaired by the apparently aberrant pattern of service use (particularly hospital use) among the study population. The strong association found elsewhere between marital status and hospital admission rates and lengths of stay was not evident among this group of elderly people throughout the three years of the study. There was no tendency for the widowed to be admitted to hospital more frequently than the married, and a tendency only among the younger widowed (that is, those aged 65-74) to remain in hospital for longer

periods of time. The explanation for this seems to lie neither in the unrepresentative nature of the group nor in the variable rate at which married and non-married respondents dropped out of the study before its completion, but rather in the relationship between the supply of and demand for hospital beds in the study area which tended to minimise the use of hospital accommodation for predominantly social reasons. From this perspective, Canterbury proved to be an inappropriate location in which to pursue the original objective. However, as with the parallel study by Morgan (1979), the particular circumstances existing within the study area enabled other aspects of the project to be highlighted. In particular, the corollary of the tendency to minimise the use of hospitals for social care is an intensification of the social and medical needs of people in the community, giving rise to separate questions about the resources available to married and non-married people in coping with them. Hence, although the study fell short of achieving its original analytical objectives, it developed alternative strengths through the case-study descriptions of how people coped with encroaching ill health and disability in an area in which hospital admission thresholds were generally high.

In the light of these observations about the strengths and weaknesses of the study, the remainder of this section attempts to highlight some of the major impressions from the data rather than to offer a systematic summary of the preceding sections.

Household structure

Clear differences exist between elderly married and non-married people in the structure of the households in which they live. Married people, almost by definition, are usually living in households with at least one other person. In this particular study, four-fifths of the married respondents were living just with their spouses, and the majority of the remainder were living with their spouses and their married or unmarried children. Among the non-married respondents, by contrast, just over half were living alone, the remainder living mainly with their married or unmarried children (in the case if the widowed) or their siblings (in the case of the single). The evidence from this and other studies indicates that the group of elderly non-married people living alone may be particularly vulnerable in several ways. For example, those who have recently been widowed seem more likely to be living alone, and to be living at some distance from their children, than those who have been widowed for longer periods of time. And almost half of the non-married respondents in single-person households in this study were aged 75 or more.

In terms of household structure, therefore, there is clear evidence of less immediate support available to the non-married than to the married, and there is further evidence from various studies (including the parallel study by Morgan) of the effect which these differences have upon patterns of hospital use. It is possible, however, to exaggerate the importance of this factor. For example, being widowed or single does not invariably equate with living alone. An alternative way of expressing the data given above is that almost half of the non-married respondents in the study were living in multi-person households of one kind or another. Moreover, by virtue of the diversity of these household types, the single and (particularly) the widowed respondents in multi-person households were often living with younger people than were the married respondents. This is particularly true of those who were living with their children or grandchildren: such people comprised nine of the 46 widowed respondents at the outset of the study but only seven of the 64 married respondents.

Because people tend to marry those within a few years of their own age, the households of elderly married people consist predominantly of two people growing old together and supporting each other in coping with the normal physical and mental consequences of the ageing process. Looked at in this way, marriage, far from having a protective effect, may constitute an added risk for those who, in addition to coping with their own illnesses and infirmities, carry extra responsibilities for a frail partner. Morgan noted that the elderly married people in her group of hospital discharges were, partly for this reason, among those facing the greatest difficulties in convalescing at home, and similar processes were evident in the present study. Significantly more illness and disability were reported among the other members of the households of married than of non-married respondents, and the cases of Mr. and Mrs. Trigg (pages 42-47), Mr. and Mrs. Penfold (pages 69-71) and Mr. and Mrs. Bryant (pages 71-73) were fairly typical of several married couples in the study who were propping each other up in their infirmities. One interesting implication of this phenomenon is the positive benefits to health that may occasionally flow from the death of one of the partners in such a marriage. The new lease of life which Mr. Tompkins (pages 118-121) assumed following the death of his wife was attributed by him in part to his release from the responsibility of caring for a weak and incapacitated partner. Of course, other patterns of intra-marital care were evident in the study which accorded more closely to the protective effect which is often claimed for it. An extreme example of this is the case of Mr. Harding (pages 124-126), who by the end of the study was a severely disabled old man, supported in independent life in his own house only by the presence of a much

younger caring wife. A less extreme example is that of Mrs. Love (pages 97-100), who seems to have been sustained through a period of physical discomfort and mental anguish by her supportive husband.

Communication and support networks

There was little evidence from the study, one way or the other, about the significance of other household members in persuading respondents either to seek professional care or to manage their ailments on their own. It was certainly true that married respondents were often persuaded by their spouses to consult their GPs when they would not have done so themselves, but non-married respondents were likewise susceptible to the persuasion of other friends and relatives. Indeed, the non-married respondents in the study, including those living alone, had often developed fairly extensive networks of contacts and support within their local communities that sometimes compensated for the absence of other household members and that yielded more practical help than that given to some of the married respondents by their spouses. There are several strands in the pattern of communication networks. First, the evidence from this and other studies suggests that elderly married and widowed people have more regular contacts with relatives than do elderly single or divorced people, and this is consistent with the impression (see page 128) that the enhanced rates of hospital use by single and divorced patients owe more to their social isolation than to their greater clinical need. However, most of this variation can apparently be attributed to the contacts which married and widowed people have with their children. Second, certain differences emerged between the married and the widowed in their contacts with relatives, particularly with their children. Although the married respondents in the study had rather more children, on average, than the widowed, the latter had closer contact with their children. Compared with the married respondents, they were more likely to be living within easy access of their children, and they were more likely to be seeing them each day. Third, women figure prominently among those relatives or friends with whom elderly people say they are in regular contact. Daughters (or daughters-in-law) were the relatives with whom married and (especially) widowed respondents were in the most regular contact; sisters (or sisters-in-law) fulfilled a similar role for single respondents; and the friends and neighbours who were mentioned by name were overwhelmingly women. Fourth, single and divorced people seem to compensate to some extent for their lesser contact with relatives by having more extensive contacts with friends and neighbours. However, the aggregation of reported contacts with relatives, friends and neighbours suggests that it is not a total compensation, for proportionately more single and divorced than married

people have regular contact with neither relatives nor friends. Fifth, in spite of the high proportion of elderly people who report that they are in regular contact with others outside their household, feelings of loneliness, isolation and even neglect were evident among the respondents in the study. An extreme example is the case of Mrs. Sandford (pages 54-57), who, according to her own account, had spent three days over Christmas alone and ill in her flat; but many other respondents also felt isolated and cut off from social contact with their community. Sometimes, as in the cases of Mrs. Sandford and Mrs. Stokes (pages 94-97). the neighbourhood was regarded not merely as inaccessible but also as positively hostile, with consequences that were explicitly identified as deleterious to health.

The distinction between communication and support networks is important. Many regular contacts were identified by the respondents that were not accompanied by expectations or materialisations of help. Knowing neighbours and seeing them regularly does not necessarily mean that people receive any practical help from them, or even expect such help. The respondents in the study had varying expectations about the help they thought they could command in circumstances such as being confined to bed for a week through illness. Most respondents could identify at least one source of help that they thought they could mobilise, but the proportion being unable to identify any such source was twice as large among the single as among the married or widowed. Though based upon small numbers, this finding is consistent with the hypothesis that social circumstances play a more significant part in the high rates of hospital use of single than of widowed people. The case of Miss Impey (pages 73-77) is illustrative of this process. An elderly single lady, Miss Impey had little support from either relatives or friends, and the subsequent onset of various disabilities, though no more severe than those of many other respondents in the study, nevertheless compelled her to leave her home and enter residential care.

Sources of help

A further difference between respondents in different marital categories emerged in the responses to questions about the nature of the anticipated source of help. Married people, not surprisingly, thought they would rely mainly on their spouses: half of them mentioned a husband or wife only, and a further third mentioned their spouse and one or more other people. The most common anticipated source of help for widowed people was a daughter or daughter-in-law: just over half of the widowed respondents identified this source of help, either by itself or in combination with another person.

Single and divorced respondents tended to be divided in their estimation of the most likely sources of help: a third mentioned relatives only (usually sisters), a quarter mentioned non-relatives only, and a fifth mentioned a combination of relatives and non-relatives. A mere handful of respondents identified statutory, voluntary or private services as their principal source of help if they had to remain in bed for a week.

Information about the help that people actually received, in contrast to the help they thought they might receive, is difficult to summarise because it cropped up at many different points in the interviews. Certain impressions may, however, be noted. One impression is the way in which unanticipated help materialised when it was needed. Many respondents tended to underestimate the extent to which they could count upon their neighbours for help. One of many illustrations of this is the case of Mrs. England (pages 58-61), who at the outset of the study had described her upstairs neighbour as a 'loner' and 'not keen on company'; but later, when Mrs. England was recovering from a second hip replacement operation, the neighbour had given substantial personal care to Mrs. England as well as assistance with such tasks as shopping and doing the washing. A second impression, which elaborates the point, is the widespread support that neighbours gave to respondents in the study, both in a specific context at times of illness or incapacity and in the general context in helping them to cope on a day-to-day basis. The popular belief that good neighbourliness no longer exists is incorrect in relation to this particular group of people. It is very difficult to quantify in any precise way the extent to which such neighbourly help prevented or minimised the reliance upon statutory services. The evidence from the case studies presented in this report suggests that such support is more likely to improve the quality and comfort of people's lives than to be a specific substitute for statutory care, but there is some evidence that the care of neighbours may have been a material factor in enabling some of the respondents to maintain their independence in their own homes. Mr. Porter (pages 38-42) is a case in point. By the end of the study, Mr. Porter was suffering from cumulative disabilities and other problems, and he seems to have been able to cope only through the sustained assistance of other people, including in particular some very caring neighbours. His is perhaps the clearest case among those presented of the value of neighbourhood support, but several of the other case studies also indicated the presence of active, helpful neighbours (see, for example, the cases of Miss Pope (pages 42-44), Mr. and Mrs. Bryant (pages 71-73), Mrs. Newman (pages 114-117) and Mr. and Mrs. Winter (pages 121-123)).

A third impression of the sources of help to the respondents in the study, which is confirmed in many other studies, is that of the importance of daughters in the support available to elderly married and widowed people. A significant distinction between the care provided by daughters and that provided by friends or neighbours is that the former does not depend exclusively upon geographical proximity, though it clearly helps. Friends and (by definition) neighbours are only useful if they live near to the person being helped, but many respondents in the study regarded their daughters as important sources of aid even though they were living in other parts of the county or farther afield. Daughters helped their parents by visiting, if necessary, at times of particular need (Mrs. England, page 59 ; Mr. and Mrs. Winter, page 126); by offering short-term accommodation in their own homes (Mrs. Ludlow, pages 91-94); occasionally by giving financial aid for private hospital or nursing care (Mrs. England, page 59); and by helping with day-to-day jobs in the home (Mrs. Willoughby, page 103). Yet in spite of the important part that daughters usually played in the care of their elderly parents, the existence of daughters did not guarantee such care. In Mrs. Sandford's case (pages 54-57), for example, two daughters living within easy reach of their elderly widowed mother failed to provide what she regarded as the kind of care that she might reasonably expect; and Mrs. Clarke's (pages 25-30) adjustment to widowhood was not helped by the limited contact she had with her daughter.

A final impression from the data on the help received by the respondents in the study was the relatively small part played by organisations of one kind or another. Churches, for example, were rarely mentioned as supportive communities, and only one of the case studies presented in this report(that of Miss Pope, pages 42-44) specifically referred to them. In this particular case, however, a church community had been beneficial in helping Miss Pope, a spinster of 82, to cope with the sudden death of the sister with whom she had been living. Likewise, day centres and day clubs did not figure as prominently in the lives of these people as might have been expected, although they were used more extensively by the non-married than the married respondents. Only Mrs. Sandford (pages 54-57) among the cases reported above appeared to regard a club as a consistently important element in her life, and friends from the club probably gave her more support than her two daughters.

Widowhood and bereavement

Turning now to a different question, that of the consequences of becoming widowed, some insights are available from the experiences of respondents who became widowed during the course of the study. Five women and two men experienced the death of a spouse during the three years of the study, but three of these bereavements occurred between the fifth and sixth interviews, thereby affording only a limited opportunity of studying their effects. The best account of the consequences of widowhood is that of Mrs. Clarke (pages 25-30), whose husband died between the first and second interviews, and who in subsequent interviews reported a variety of problems and difficulties that stemmed more or less directly from her loss. Mrs. Clarke's case illustrates well the advantages of a longitudinal design in studying the consequences of specific events, for a much more thorough and realistic account of the consequences of bereavement could be constructed in this way than by questioning existing widows and widowers about events and experiences that had happened in the past.

Taking all seven newly-widowed respondents together, there was some evidence in support of the classic pattern of increased use of health services following bereavement. The confidence that can be placed in this conclusion is impaired by the differing periods of time before and after widowhood for which information about service use was collected, but six of these seven respondents increased their adjusted annual rate of GP consultations in the post-bereavement period during which they remained in the study, and three of them were admitted to hospital within a few months of becoming widowed. These findings can to some extent be attributed directly to the experience of widowhood. For example, feelings of depression and loneliness, and difficulty in sleeping, were commonly experienced symptoms in the post-bereavement period, and visits to the doctor's surgery for drugs to alleviate them appeared to account in large part for the 'excess' rate of GP consultations. The three hospital admissions cannot, however, be explained in such an obvious way. Mrs. Newman (pages 114-117) entered hospital about a year after her husband's death for the removal of a growth on her neck; Mr. Tompkins (pages 118-121) had spent a week in hospital, a month or two after his wife's death, following a severe attack of petit mal; and in the third case (not reported above) a 73-year old man spent two weeks in hospital, some 15 months after his wife's death, following a mild heart attack. It is plainly impossible, on the evidence available, to judge whether these admissions can be attributed to the consequences of bereavement. All that can be said is that they accord with the hypothesis that the enhanced rates of hospital use

among widowed people is due in part to their increased risk of admission in the years immediately following bereavement. And the admission of the 73-year old man following a mild heart attack is also consistent with the findings of other studies (for example, Parkes, et al, 1969) that the greatest increase in mortality during the initial months of widowhood occurs among those dying from coronary thrombosis and other arteriosclerotic and degenerative heart disease.

The case of Mrs. Clarke suggested a possible link between widowhood and health that has not commonly been noted in other studies. From being a woman in apparently good health for her age, and, as she herself put it, gregarious and full of life, Mrs. Clarke became, in the months following the death of her husband, lonely, isolated, nervous, tired, and unable to cope properly with the management of the household. At each interview following the death of her husband, Mrs. Clarke said that her health had deteriorated during the preceding six months, and in the final interview she consciously attributed these changes to her bereavement. Yet Mrs. Clarke did not mention any major changes in the specific disorders from which she suffered, apart from the onset of a state of nervousness. Her main reported health problems throughout the study were diabetes and occasional episodes of rheumatism and respiratory infections. The effect of widowhood seems, in Mrs. Clarke's case, to be reflected less in the onset of new conditions causing disability, and more in the intensification of the limitations imposed by pre-existing conditions. In particular, the tiredness which Mrs. Clarke felt when walking long distances, and which she attributed at least in part to her diabetes, fostered a deep sense of isolation that had not existed when her husband had been alive and the car was available. Widowhood, in other words, may generate changes in life-style that require new ways of adapting to existing conditions and disabilities, and it is the difficulties in adaptation that may account in part for the enhanced use that newly widowed people make of health and other services. There is also evidence from other cases in the study that the experiences of people leading up to the deaths of their spouses may affect the way in which they respond to the deaths themselves. Mrs. Newman (pages 114-117), for example, experienced considerable exhaustion and worry whilst nursing her husband through the terminal stages of cancer, and she thought that this experience contributed to the depression and tiredness she felt after his death. For Mr. Tompkins (pages 118-121), by contrast, widowhood represented release from the restrictions that had been imposed upon him by an ailing wife, and in the interview following his bereavement he seemed to have taken on something of a new lease of life, joining new organisations and developing new contacts with friends and neighbours.

A final point about the consequences of widowhood that has not been emphasised in the literature is the way in which comparable experiences can occur to non-married people. Of course, the marital relationship has distinctive features that are not replicated in any other relationship, but there was evidence in the study that the death of a sibling may be as significant an event for single people as the death of a spouse is for married people. The concept and consequences of bereavement is not the exclusive property of the married. Two illustrations of this have been presented in this report. Miss Pope (pages 42-44) was a very elderly spinster who, at the outset of the study, had been living for many years with her younger sister. The sister died suddenly from a stroke shortly before the third interview, and Miss Pope's account of her reactions to the sister's death was very similar to that given by married people on the deaths of their spouses. The similarity was evident not only in terms of the emotional response, but also in terms of the adjustments that had to be made in daily living. Miss Pope complained, for example, that owing to the lack of help, she was not able to have a proper bath - an identical problem to that reported by Mrs. Newman (page 116) following the death of her husband. The second illustrative case is that of Mrs. Perkins (pages 37-38), a widow who, though not actually living with her sister, was nevertheless dependent on her for social contact. As with Miss Pope, the unexpected death of the sister left Mrs. Perkins in a situation not dissimilar to that of the newly widowed respondents, and by the end of the study she was making plans to link up with another sister in Canada.

Reported difficulties in daily living

Lastly, some general impressions may be recorded not about the differing contexts and experiences of married, widowed and single people, but about the general difficulties experienced by the elderly respondents in this study. One strong impression that the author has gained from the data is the way in which so many people were living at the margin of their social and physical resources, and were having to cope with considerable disadvantages, handicaps and setbacks with relatively little assistance. It is recognised that such an assertion is necessarily a subjective evaluation, and is based exclusively upon the accounts given by the people themselves; but it is surprising, and to some extent shocking, that among a random group of non-institutionalised people aged 65 and over, so many cases should have been discovered of people living in situations of considerable difficulty. The case of Mr. Porter, lying awake at night afraid of falling ill and being unable to summon help, rolling and dragging his way around his house because of the lack of

appropriate aids, and struggling on his bicycle to reach the shops, the chemist and the doctor's surgery, seems almost like a flashback to an earlier generation. His was one of the more extreme cases, but many of the other cases reported above, and many of those not reported for lack of space, illustrate quite clearly the difficulties faced by elderly people in their own homes.

Some indicators emerge from the case studies about the nature and causes of these difficulties. One factor that was fairly widespread among the study population was that of isolation. At least three dimensions of isolation were evident. The first was the isolation felt by those who had moved from one part of the country to another on their retirement. This particular facet of isolation may have been emphasised in this and other studies (e.g. Karn, 1977) by virtue of its location in a geographical area that is well known as a retirement zone and that contains an uncommonly high proportion of retired people. Many respondents in the study had moved to the area on retirement, and several (such as Mr. Trigg, page 44 and Mrs. Newman, page 114) regretted it. Respondents reported difficulty in making new friendships, and this, as Mrs. Clarke found, could be an added difficulty in coping with the consequences of widowhood. The second dimension of isolation was that of the location of houses, bungalows and flats. Respondents frequently complained about the distances they had to travel to shops and other facilities, and about the cost and unreliability of public transport. In some cases necessary shopping remained undone and needed visits to doctors' surgeries were postponed. In other cases additional expenditure was incurred through the use of taxis. An effective and cheap transportation system would probably do as much as any other single measure to improve the quality of the lives of many of the respondents in the study. The third dimension of isolation, to which reference has already been made, was that of the isolation which respondents felt in their own homes. Again, this took various forms. Several respondents were worried by their inability to communicate with the world outside their homes, and would have liked to have a telephone or some other communication system installed. Others were cut off from simple forms of help that would have made life easier or more comfortable for them. Many respondents, for example, would have liked help in having a proper bath, and some (such as Miss Impey, page 76 and Mrs. Willoughby, page 104) had been deprived of heat because of their incapacity to fetch the fuel. In yet other cases the effect was potentially more serious: there were occasional reports of people blacking out or falling over and remaining on the floor for some time until help arrived.

Another factor that seems to have contributed to the difficulties faced by some of the respondents was that of their attitudes towards independence and self-sufficiency. Such attitudes are common, as the case studies have shown, and often they were constructive and beneficial. The desire to remain in their own homes, and to be as independent as possible of outside help, was important to the self-respect and psychological well-being of many of the respondents, and it enabled them to cope with adversities and setbacks that might otherwise have swamped them. But such attitudes, though wholly understandable, may eventually become counter-productive by raising needless barriers to services that are available and that might help the recipients to maintain their own goal of independence within their homes. The appropriate response to such attitudes is not to condemn them for their intransigence but rather to continue the search for ways of identifying potential recipients and offering them help in a manner that does not threaten their self-respect or undermine their desire for independence.

Finally, this study has confirmed the results of many other investigations about the widespread effects of disability upon the quality of the lives of elderly people. Restrictions in mobility, limitations in the capacity to perform the basic tasks of self-care, and the fear of falling or blacking-out imposed quite widespread constraints on the things that people could do and the confidence with which they did them. The conceptualisation and measurement of disability in this study was done in a way that enabled limited comparisons to be made with other studies both of the prevalence of disability and of the changes in the disablement status of individuals over time. Such comparisons suggested that the information obtained in this study was broadly compatible with that of other studies, particularly those carried out in Canterbury. In many cases the disabilities experienced by the respondents were the result of a gradual process of diminishing capacity rather than the specific outcome of a single, identifiable event. It is interesting, however, that in at least two cases the fairly abrupt onset of acute symptoms seems to have acted as a catalyst in the respondents' perceptions of their disabilities (see, for example, the case of Miss Impey, pages 74-77). No systematic assessments were made of the services required to alleviate the disabilities experienced by the respondents, and no information was gathered about the attempts (successful or otherwise) that they had made to secure them; but a fairly strong impression comes through from the data that some of the disabilities, particularly those concerning mobility within the home and out of doors, were not being alleviated to the extent that might have been possible.

EPILOGUE: THE PROJECT IN PERSPECTIVE

This project, and the three reports it has produced, developed out of the observation that people in different marital status groups experienced differing mortality and morbidity rates, and behaved very differently in their use of hospitals and other health services. Such differences appeared to be pervasive in time and space, and were similar to (and in some cases greater than) the differences between men and women or between social class groups. The project has been concerned with two basic questions: why do these differences occur, and what are their implications for health care policy? In addressing these questions, the project has achieved a number of different things.

First, the detailed contours of the marital status variations in hospital use have been mapped out with greater clarity than had previously been done. The first report of the project (Butler and Morgan, 1974) contained the detailed tabulations and commentary, and a summary was subsequently published in the British Journal of Preventive and Social Medicine (Butler and Morgan, 1977). The published paper is mentioned in this context because of the considerable interest it generated. Requests for reprints of the paper were actually received from 13 different countries, and it has been included in at least two anthologies. Such a response is at least suggestive of a fairly widespread interest in the substance of the paper and in the analytical methods it used.

Second, the project has gathered together the literature on marital status variations in service use, and has attempted to order it in terms of explanatory hypotheses. The forthcoming paper in Social Science and Medicine (Morgan, 1980) is the major product of this part of the project, and it is hoped that it will generate the same interest as the earlier paper. One important question that is discussed in this paper is the continuing appropriateness of marital status as an analytical variable. The logic of its use rests upon the prior assumption that an individual's legally defined marital state both reflects and creates an identity and life-style that, in probabilistic terms, is differentiated from those of other marital states. It is possible, however, that the validity of this assumption is weakening, for various trends (such as the increase in consensual unions, the rising rate of divorce and remarriage and the growing financial security of never-married and formerly-married women) are likely to reduce the analytical salience of the marital status variable.

Third, the two studies in the project have explored in some detail the nature of the association between marital status and hospital use among one sector of the population (those aged 65 and above) in one local area. They have concentrated particularly on the ways in which community structures influence the differential use of hospitals by elderly married and non-married people, and they have each employed a research approach that is unusual, though not unique. The hospital study (Morgan, 1979) sought to examine the influence of clinical and social needs on patterns of hospital admission and discharge, and it did this by developing a method of utilisation review that could be applied routinely in the wards of a district general hospital. The usefulness of this study, therefore, lay not only in the substantive results of the review when applied to the study hospital, but also in the development of a feasible research tool for application elsewhere. The report of that study paid particular attention to the methodological aspects of the review. The community-based study reported here has tried to describe the experiences of a small group of elderly people over a period of three years. Again, it is hoped that the value of the study lies not only in the research findings, but also in the utility that has been demonstrated of a longitudinal study of this nature. There are difficulties involved in this type of research design, but the report has shown that it can be carried out quite cheaply, and yield insights that are not available from conventional cross-sectional surveys. As with the hospital utilisation review, more widespread use might profitably be made of longitudinal surveys of elderly people. In addition to their methodological aspects, the reports of both studies have tried to relate the research results to the underlying questions and objectives of the project, thereby adding a little to our understanding of the processes at work in producing the observed association of marital status and hospital use.

Fourth, the particular area in which the project has been located, and the distinctive features of the hospital that serves it, have produced a number of conclusions about the interpretation of routinely available statistics on hospital use. Many of these were discussed in the report of the hospital study (Morgan, 1979); they included, for example, the need to take account of transfers in making comparisons over time or between hospitals, and to allow for readmissions in using HIPE statistics in arguments about the variations in hospital use between people in different population sub-groups. Both studies also emphasised the way in which the availability and use of health service resources in the study area appeared to affect the anticipated relationship between marital status and hospital admission and length of stay.

Fifth, both studies have generated conclusions that may be of relevance to policy-makers, not in the sense of providing policy prescriptions (for example by demonstrating cost-effective alternatives to established ways of doing things), but rather in the sense of highlighting events, processes and opportunities that might increasingly be the subject of policy decisions. The future growth in the number of elderly people, coupled with population processes that may be expected to divide families geographically and to increase the number and proportion of elderly non-married people, will ensure that the proper care of the elderly will continue to be a major emphasis in social policy developments. Both studies in this project have contributed to the necessary task of describing the needs of resources of elderly people, particularly at times of heightened difficulty when leaving hospital or when experiencing a decline in health and functional capacity.

As an illustration, one consistent result emerging from both studies is the significance of informal helpers in enabling elderly people to manage in their own homes. In all sorts of ways, family members, friends and neighbours performed a wide range of services that would otherwise have had to be provided from other resources, or not at all. These informal helpers were predominantly women, and many were themselves elderly. These findings are similar to those reported by Green et al (1979), and they bear out an implicit assumption of community care that an additional resource is available to supplement the statutory services, the voluntary organisations and the 'professional' good neighbour (Challis, 1979). Without such informal support, the quality of domiciliary care of the elderly would be substantially impaired. However, as Green et al point out, 'this suggests that the unit of care and focus of policy in domiciliary services should not only be the individual but also the informal network of helpers' in order to ensure that such helpers are themselves helped to co-ordinate their efforts with those of others, and also to cover the gaps that arise when they can no longer provide such help.

Sixth, the project has suggested a number of topics upon which future research effort might be concentrated, although no further proposals will be made from the Health Services Research Unit. It is apparent, for example, that the association of marital status with morbidity and mortality differences remains imperfectly understood. Future work in exploring this association might attempt to derive and test causal hypotheses in the way suggested by Bachrach (1975) in relation to mental disorder, or to explore the usefulness of the concept of general susceptibility (Najman, 1980). A second obvious possible focus of future work is in the effects of marital breakdown. So far a good deal of effort has been spent in mapping out the consequences of

widowhood, but Leete's (1977) population projections indicate that the largest proportional increase in the number of elderly people will occur among those who are divorced. For obvious reasons existing research (including the two studies in this project) have had little to say about the category of elderly divorced people, but the similarities and dissimilarities between the experiences of divorced and widowed people may be a critical factor in the community care of elderly people between now and the end of the century.

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Table 1 Rates of participation in the study

	1st interview	2nd interview	3rd interview	4th interview	5th interview	6th interview
Number of respondents approached	200	126	115	107	101	98
of which:						
Not on GP's list	14	-	-	-	-	-
Died	10	5	1	2	1	1
Moved elsewhere	11	1	-	1	1	0
Refused	30	4	6	3	-	3
Permanently hospitalised	-	1	1	-	1	1
Not contacted	9	1	-	2	4	1
Interviewed	126	114	107	99	94	92

Table 2 Percentage distribution of marital status, by sex and age, of respondents in study and of total population aged 65 and over in the study area at 1971 census

Age and marital status	Males			Females		
	Respondents		Population	Respondents		Population
	no.	%	%	no.	%	%
Under 65						
married	1	100		1	50	
widowed	-	-		-	-	
divorced	-	-		-	-	
single	-	-		1	50	
sub-total	1	100		2	100	
65-69						
married	16	88	86	11	44	55
widowed	1	6	7	10	40	28
divorced	1	6	-	1	4	1
single	-	-	7	3	12	16
sub-total	18	100	100	25	100	100
70-74						
married	9	75	80	12	50	44
widowed	1	8	13	8	33	39
divorced	-	-	-	1	4	1
single	2	17	7	3	13	16
sub-total	12	100	100	24	100	100
75-79						
married	4	80	75	5	26	30
widowed	1	20	19	14	74	49
divorced	-	-	-	-	-	1
single	-	-	6	-	-	20
sub-total	5	100	100	19	100	100
80 and over						
married	3	50	54	2	15	14
widowed	2	33	39	9	64	66
divorced	-	-	-	-	-	-
single	1	17	7	3	21	20
sub-total	6	100	100	14	100	100

Table 3 Percentage distribution of age, by sex, of respondents in study and of total population aged 65 and over in the study area at 1971 census

Sex and age group	Percentage distribution of respondents in study	Percentage distribution of total population, 1971
Men		
65 - 69	44	38
70 - 74	29	29
75 - 79	12	18
80+	15	15
All ages	100	100
Women		
65 - 69	30	31
70 - 74	29	27
75 - 79	23	20
80+	18	22
All ages	100	100

Table 4 Household composition of respondents at the outset of the study

Other household members	Marital status and sex of respondents							
	Married		Widowed		Single		Divorced	
	M	F	M	F	M	F	M	F
None	-	-	4	22	2	5	1	2
Spouse only	27	28	-	-	-	-	-	-
Spouse and unmarried child(ren)	4	2	-	-	-	-	-	-
Spouse and married child(ren)	1	-	-	-	-	-	-	-
Spouse and other (s)	1	1	-	-	-	-	-	-
Unmarried child(ren) only	-	-	-	3	-	-	-	-
Married child(ren) only	-	-	-	6	-	-	-	-
Siblings	-	-	-	3	1	5	-	-
Other relative(s)	-	-	-	2	-	-	-	-
Other non-relative(s)	-	-	1	5	-	-	-	-
Total	33	31	5	41	3	10	1	2

Table 5 Number of surviving children reported by married and widowed respondents at the outset of the study

No. of surviving children	Married respondents	Widowed respondents
0	8	8
1	20	20
2	22	8
3	5	4
4	3	3
5+	6	3
Total	64	46

Table 6 Residence of children of married and widowed respondents at the outset of the study

Residence of children	Married respondents	Widowed respondents
At least 1 child in same household	7	9
At least 1 child in same town, but not same household	13	10
At least 1 child in same county, but not same town	25	9
No child(ren) in same county	11	10
No children	8	8
Total	64	46

Table 7 Frequency of contact with children by married and widowed respondents at the outset of the study

Frequency	Married respondents	Widowed respondents
At least 1 child once a day	8	16
At least 1 child once a week, but less than once a day	21	10
At least 1 child once a month, but less than once a week	16	3
At least 1 child once a year, but less than once a month	10	8
No child for at least a year	1	1
No children	8	8
Total	64	46

Table 8 Residence of children and relatives of respondents, by marital status, at the outset of the study

	At least 1 child in same town or village	At least 1 child in Kent, but not same town	No children in Kent	No children
At least 1 relative in same town or village	Married 10 Widowed 8 Single/ divorced -	Married 4 Widowed 1 Single/ divorced -	Married 2 Widowed 3 Single/ divorced -	Married 3 Widowed 3 Single/ divorced 11
	A			B1
At least 1 relative in Kent, but not same town	Married 7 Widowed 2 Single/ divorced -	Married 11 Widowed 4 Single/ divorced 1	Married 4 Widowed 2 Single/ divorced 1	Married 2 Widowed 2 Single/ divorced -
No relatives in Kent	Married 2 Widowed 5 Single/ divorced -	Married 3 Widowed 1 Single/ divorced -	Married 3 Widowed 3 Single/ divorced -	Married 1 Widowed 1 Single/ divorced 1
	B2			C
No relatives	Married 1 Widowed 4 Single/ divorced -	Married 7 Widowed 3 Single/ divorced -	Married 2 Widowed 2 Single/ divorced 1	Married 2 Widowed 2 Single/ divorced 1

Table 9 People mentioned at the first interview as a source of help if respondent was confined to bed for a week because of illness

Source(s) of help	Marital status		
	Married	Widowed	Single / divorced
Spouse only	32	-	-
Spouse + daughter(s)	8	-	-
Spouse + other relative(s)	5	-	-
Spouse + non-relative(s)	8	-	-
Daughter(s) only	3	15	-
Daughter(s) + other relatives(s)	1	2	-
Daughter(s) + non-relative(s)	-	7	-
Other relative(s) only	1	4	5
Non-relative(s) only	2	11	4
Other relative(s) + non-relative(s)	-	2	3
Statutory/voluntary/private services only	-	1	1
No specific help mentioned	4	4	3
Total	64	46	16

Table 10 Proportion of completed interviews at which respondents reported unmet needs for help of any kind in the preceding six months

Proportion of interviews	Marital status		
	Married	Widowed	Single/ divorced
None	53	36	14
1 - 24%	5	6	1
25 - 49%	5	-	1
50 - 74%	1	2	-
75% or more	-	2	-
Total	64	46	16

Table 11 Proportion of completed interviews at which respondents reported unmet needs for help of any kind at the time of the interview

Proportion of interviews	Marital status		
	Married	Widowed	Single/ divorced
None	36	31	9
1 - 24%	17	5	2
25 - 49%	5	5	2
50 - 74%	1	1	2
75% or more	5	4	1
Total	64	46	16

Table 12 Prevalence rates per 1,000 population of handicapped men and women aged 65 and over in private households in Gt. Britain, 1968-9

(Source: A.I. Harris with E. Cox and C.R.W. Smith, 1971, Table A V11 b)

	Marital status		
	Married	Single	Widowed/divorced/ separated
All categories of handicap			
Men	234	139	311
Women	246	218	356
Categories 1-6 only			
Men	78	34	97
Women	101	87	164

Table 13 Subjective assessment of health status, by marital status, at the outset of the study

Assessment of health status	Marital status		
	Married	Widowed	Single/ divorced
Excellent	12	7	4
Good	24	16	7
Fair	15	15	3
Poor	10	6	2
Other response	3	2	-
Total	64	46	16

Table 14 Subjective assessment of change in health status, by marital status, of respondents remaining in the study for its full duration

Assessment of change	Marital status		
	Married	Widowed	Single/ divorced
No change	20	10	5
Change for worse	18	8	3
Change for better	10	5	2
Other response	2	6	-
Total	50	29	9

Table 15 Symptoms and conditions reported by respondents at any stage in the study, by age and marital status

Symptom/ condition	Age and marital status: Under 75			75 and above		
	Married	Widowed	Single/ divorced	Married	Widowed	Single/ divorced
Rheumatism/arthritis	34%	50%	(33%)	(14%)	38%	(50%)
Other and non-specific musculoskeletal	24%	45%	42%	57%	35%	(100%)
Heart, circulation	30%	40%	(17%)	42%	38%	(75%)
Bronchitis	20%	(5%)	(8%)	(7%)	(8%)	-
Other respiratory	28%	45%	(33%)	(21%)	27%	-
Mental	16%	(5%)	(25%)	(7%)	(4%)	(25%)
Nervous system	12%	(5%)	-	(7%)	(4%)	-
Hearing	10%	-	(8%)	-	(12%)	-
Vision	(8%)	(5%)	(8%)	36%	19%	-
Digestive	(6%)	25%	(17%)	(7%)	(17%)	(25%)
Blood	(2%)	-	-	(7%)	(8%)	(25%)
Ulcers	(6%)	-	-	-	(12%)	-
Haemorrhoids	(4%)	(5%)	(8%)	-	-	-
Diabetes	(8%)	-	-	-	-	
Skin	(8%)	-	-	-	(4%)	-
Hernia	(2%)	(5%)	-	-	-	-
Head pains	(4%)	-	(8%)	-	-	(25%)
Miscellaneous	16%	(5%)	(8%)	(29%)	(15%)	(50%)
N (=100%)	50	20	12	14	26	4

Note: Percentages in brackets are based upon frequencies of less than 5.

Table 16 Mobility difficulties out-of-doors and indoors at the outset of the study, by age and marital status

Mobility difficulties	Age and marital status					
	Under 75			75 and above		
	Married	Widowed	Single/ divorced	Married	Widowed	Single/ divorced
Out-of-doors						
No difficulty	43	16	7	7	16	4
Some difficulty	6	4	3	5	8	-
No mobility	1	-	2	2	2	-
Total	50	20	12	14	26	4
Indoors						
No difficulty	48	19	11	10	22	4
Some difficulty	2	1	1	4	4	-
No mobility	-	-	-	-	-	-
Total	50	20	12	14	26	4

Table 17 The reporting of mobility difficulties throughout the duration of the study, by age and marital status

Mobility difficulties	Age and marital status					
	Under 75			75 and above		
	Married	Widowed	Single divorced	Married	Widowed	Single/ divorced
Out-of-doors						
No difficulty at any interview	36	15	4	5	8	2
Some difficulty at all interviews	3	3	1	2	4	-
No mobility at any interview	-	-	-	2	2	1
Variations in response	11	2	7	5	12	1
Total	50	20	12	14	26	4
Indoors						
No difficulty at any interview	44	17	9	9	18	3
Some difficulty at all interviews	1	-	1	4	3	-
No mobility at any interview	-	-	-	-	-	-
Variations in response	5	3	2	1	5	1
Total	50	20	12	14	26	4

Table 18 Number of self-care tasks causing difficulty at the outset of the study, by age and marital status

Number of tasks causing difficulty	Age and marital status					
	Under 75			75 and above		
	Married	Widowed	Single/ divorced	Married	Widowed	Single/ divorced
0	40	16	8	7	15	3
1	7	3	2	5	7	1
2	1	1	-	-	2	-
3	1	-	-	-	-	-
4	-	-	-	1	2	-
5	-	-	1	-	-	-
6	1	-	1	-	-	-
7	-	-	-	1	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
Total	50	20	12	14	26	4

Table 19 Changes between first and sixth interviews in the difficulties caused by self-care tasks (N=91)

Task	Reported no difficulty at both interviews	At follow-up performs functions with less difficulty than initially	Same amount of difficulty at each interview	At follow-up performs functions with more difficulty than initially
Getting in and out of bed on your own	89%	5%	(1%)	(4%)
Getting to or using the W.C.	97%	(1%)	-	(2%)
Having an all-over wash or bathing yourself if bath used	77%	(4%)	9%	10%
Washing your hands and face	98%	-	-	(2%)
Putting on shoes and socks or stockings yourself	84%	7%	(3%)	7%
Doing up buttons and zips yourself	87%	(4%)	(3%)	5%
Dressing, other than buttons and shoes, etc.	92%	(3%)	(1%)	(3%)
Feeding yourself	93%	-	-	7%
Women and children:				
Combing and brushing your hair	93%	(1%)	(1%)	(4%)
Men:				
Shaving yourself				

Note: Percentages in brackets are based upon frequencies of less than 5

Table 20 Respondents' reporting of hospital in-patient admissions during the course of their participation in the study, by age and marital status

	Age and marital status					
	under 75			75 and above		
	Married	Widowed	Single/ divorced	Married	Widowed	Single/ divorced
Respondents with no admissions	80%	80%	83%	57%	88%	(50%)
Respondents with 1 or more admissions	20%	(20%)	(17%)	43%	(12%)	(50%)
Total (=100%)	50	20	12	14	26	4
Respondents with multiple admissions	1	-	-	3	1	-
Median length of stay of all admissions (days)	8	15	54	10	10	3

Note: Percentages in brackets are based upon frequencies of less than 5

Table 21 Respondents' reporting of hospital out-patient clinic attendances during the course of their participation in the study, by age and marital status

Number of interviews at which OP attendance in previous six months was reported	Age and marital status					
	under 75			75 and above		
	Married	Widowed	Single/ divorced	Married	Widowed	Single/ divorced
None	52%	80%	58%	(29%)	58%	(75%)
One	24%	(5%)	(25%)	(29%)	23%	-
Two	(8%)	(10%)	(17%)	(13%)	(8%)	-
Three or more	16%	(5%)	-	(29%)	(11%)	(25%)
Total (=100%)	50	20	12	14	26	4

Note Percentages in brackets are based upon frequencies of less than 5

Table 22 Mean number of reported general practitioner consultations in each six-month recall period by age and marital status

Mean number of GP consultations in each 6-month period	Age and marital status					
	under 75			75 and above		
	Married	Widowed	Single/ divorced	Married	Widowed	Single/ divorced
0.00 - 0.99	24	8	7	5	10	1
1.00 - 1.99	10	4	1	2	3	1
2.00 - 2.99	8	3	1	2	6	1
3.00 - 3.99	4	1	2	2	3	1
4.00 +	1	-	-	1	2	-
No answer	3	4	1	2	2	-
Total	50	20	12	14	26	4

Table 23 Respondents' reporting of contacts with a nurse during the course of their participation in the study, by age and marital status

Number of interviews at which a nurse was seen in the previous six months	Age and marital status					
	under 75			75 and above		
	Married	Widowed	Single/ divorced	Married	Widowed	Single/ divorced
None	72%	50%	50%	50%	54%	(25%)
One	22%	30%	(33%)	(14%)	23%	-
Two	(2%)	(10%)	(8%)	(7%)	(12%)	(25%)
Three or more	(4%)	(10%)	(8%)	(29%)	(12%)	(50%)
Total (=100%)	50	20	12	14	26	4

Note: Percentages in brackets are based upon frequencies of less than 5

Table 24 The reported consumption of regularly taken medicines and/or medicines on repeat prescriptions, by age and marital status, at the fourth and sixth interviews

Drugs taken regularly and/or on repeat prescriptions	Age and marital status					
	under 75			75 and above		
	Married	Widowed	Single/ divorced	Married	Widowed	Single/ divorced
Fourth interview						
Yes	27	8	8	9	13	2
No	15	6	3	2	5	1
Total	42	14	11	11	18	3
Sixth interview						
Yes	29	9	7	8	14	2
No	12	5	1	2	3	2
Total	41	14	8	10	17	4